

ZONING BY-LAW

WARREN, MASSACHUSETTS

ADOPTED NOVEMBER 27, 1984



WITH AMENDMENTS THROUGH MAY 9, 2023

**Warren Town Clerk
Shepard Municipal Building
48 High Street
Warren, MA 01083**

ZONING BY-LAW

SECTION 1. GENERAL	1
1.1 Authority	1
1.2 Purpose	1
1.3 Basic Requirements	1
1.4 Definitions	1
1.5 Non-Conforming Buildings, Structures, and Uses.....	2
SECTION 2. ESTABLISHMENT OF DISTRICTS	4
2.1 Classes of Districts	4
2.2 Incorporation of Zoning Map	4
2.3 Location of Boundaries.....	4
SECTION 3. USE REGULATIONS	5
3.1 Basic Requirements	5
3.2 Schedule of Use Regulations	6
SECTION 4. DIMENSIONAL REQUIREMENTS	10
4.1 Basic Requirements	10
4.2 Schedule of Dimensional Requirements	10
4.3 Special Dimensional Requirements.....	11
SECTION 5. SPECIAL PERMITS AND VARIANCES	14
5.1 Special Permits.....	14
5.2 Variances.....	15
5.3 Site Plan Approval.....	15
SECTION 6. ADMINISTRATION	18
6.1 Enforcement	18
6.2 Board of Appeals	18
6.3 Penalty	18
6.4 Amendment.....	18
6.5 Validity	18
6.6 Other Regulations	18
6.7 Repeal of Existing By-Laws	18
SECTION 7. SITING OF WIRELESS COMMUNICATIONS FACILITIES.....	19
7.1 Purpose.....	19
7.2 Definitions	19
7.3 General Requirements	19
7.4 Review Standards.....	20
7.5 Development Requirements	20
7.6 Conditions.....	21
SECTION 8. EARTH REMOVAL.....	23
8.0 Definitions.....	23
8.1 Scope	23
8.2 Special Permit Required.....	23
8.3 Information Required	23
8.4 Criteria for Evaluation	24
8.5 Time Period	24
8.6 Approval and Conditions	24
8.7 Renewal.....	25
8.8 Exemptions	25

8.9	Waiver of Requirements	26
8.10	General Provisions	26
SECTION 9.	GROUNDWATER PROTECTION.....	27
9.1	Purpose of District	27
9.2	Scope of Authority	27
9.3	Definitions	27
9.4	Establishment and Delineation of Groundwater Protection District	28
9.5	District Boundary Disputes	28
9.6	Use Regulations	28
9.7	Procedures for Issuance of Special Permit	30
9.8	Severability	31
SECTION 10.	FLOOD PLAIN DISTRICT	32
10.1	Purpose	32
10.2	District Delineation.....	32
10.3	Use Regulations	32
10.4	Permitted Uses	32
10.5	Special Permits.....	33
10.6	Penalties	33
10.7	Base Flood Elevation and Floodway Data	33
10.8	Notification of Watercourse Alteration	34
SECTION 11	OPEN SPACE RESIDENTIAL DEVELOPMENT (OSRD)	35
11.1	Purpose	35
11.2	Procedures	35
11.3	Dimensional Requirements	36
11.4	Open Space Requirements	36
SECTION 12	SOLAR ENERGY	39
12.1	Purpose	39
12.2	Applicability.....	39
12.3	General Requirements	39
12.4	Monitoring and Maintenance	45
12.5	Discontinuance, Decommissioning, Abandonment and Removal	46
12.6	Definitions.....	50
SECTION 13	MILL CONVERSION OVERLAY DISTRICT	51
13.1	Purpose	51
13.2	Establishment of Overlay District	51
13.3	Special Permit and Site Plan Approval Required.....	51
13.4	Dimensional Regulations.....	52
13.5	Submission Requirements	52
13.6	Development Standards.....	53
13.7	Approval Criteria.....	54
13.8	Waivers.....	54
13.9	Definitions.....	54
SECTION 14	MAJOR DEVELOPMENT OVERLAY DISTRICT	55
14.1	Purpose	55
14.2	Establishment of Overlay District	55
14.3	Special Permit Uses	55
14.4	Dimensional Standards	55
14.5	Procedures	56
14.6	Design Standards.....	56
14.7	Decision Criteria	57

14.8	Modification	57
SECTION 15	MARIJUANA ESTABLISHMENTS AND MEDICAL MARIJUANA TREATMENT CENTERS	58
15.1	Purpose	58
15.2	Cultivation in the Rural District:	58
15.3	Special Permit and Site Plan Approval Required	59
15.4	Buffer	59
15.5	Security Plan	59
15.6	Additional Standards Applicable to Marijuana Establishments and MMTCs	59
SECTION 16	COMMERCIAL WIND ENERGY	61
16.1	Purpose	61
16.2	Applicability	61
16.3	General Requirements	61
16.4	Monitoring, Maintenance, Reporting, Modifications	72
16.5	Decommissioning, Removal, Abandonment, Financial Surety	74
16.6	Definitions	77
APPENDIX 1	CHRONOLOGY OF ZONING AMENDMENTS	80
APPENDIX 2	TEMPORARY MORATORIUM ON THE CONSTRUCTION OF LARGE SOLAR ENERGY FACILITIES	81

SECTION 1. GENERAL

1.1 Authority

This zoning by-law is adopted in accordance with the provisions of Massachusetts General Laws Chapter 40A.

1.2 Purpose

The purpose of this zoning by-law is to preserve and promote the health, safety, convenience, and welfare of the inhabitants of the Town of Warren; to lessen the danger from fire and congestion; to avoid undue concentration of population; to encourage the most appropriate use of land throughout the Town; and, to preserve and increase its amenities.

1.3 Basic Requirements

All buildings or structures hereafter erected, constructed, reconstructed, altered, enlarged, or moved and all use of premises in the Town of Warren shall be in conformity with the provisions of this by-law. Any building, structure, or land shall not be used for any purpose or in any manner other than is permitted in the district in which such building, structure or land is located. Any use not specifically provided for in a district herein shall be deemed prohibited. In accordance with General Laws Chapter 40A, and notwithstanding any provisions to the contrary, this by-law shall not prohibit or restrict the use of land, buildings or structures for religious purposes or for educational purposes on land owned or leased by the Commonwealth of Massachusetts or any of its agencies, subdivisions or bodies politic or by religious sect or denomination, or by a nonprofit educational corporation; provided, however, that such land, building or structures may be subject to reasonable regulations concerning the bulk and height of structures and determining yard sizes, lot area, setbacks, open space, parking and building coverage requirements.

1.4 Definitions

For the purposes of this by-law, the following terms shall have the meanings hereby assigned to them.

Accessory Buildings or Use - a building or use customarily incidental to and located on the same lot with a principal building or use, or an adjoining lot under the same ownership.

Auto Auction Services/Facility - A facility where auctions are conducted either online or in-person for the purpose of selling used and salvage vehicles including but not limited to autos, trucks, vans, boats, recreational vehicles, and motorcycles for personal and/or commercial use.

Building - an independent structure having a roof supported by columns or walls resting on its own foundations and designed for the shelter, housing or enclosure of persons, animals or property of any kind.

Dwelling - a building designed and used exclusively for continuous or permanent residential occupancy, not including hotels, motels, inns, tourist courts, boarding houses, trailers or structures solely for the use of transient or overnight occupants.

Dwelling Unit - one or more rooms providing complete living facilities for one household, including equipment for cooking or provisions for the same, and including room (s) for living, sleeping and eating.

Fast Food Establishment - an establishment whose primary business is the sale of fast food for consumption on or off the premises. Fast order food is food, which is:

- a. primarily intended for immediate consumption rather than for use as an ingredient in or component of meals;
- b. available upon a short waiting time; and

- c. packaged or presented in such a manner that it can be readily eaten outside the premises where it is sold.

Home occupation - occupations such as preserving or home cooking, repair of portable equipment or appliances; real estate agent; craft manufacture; private instruction in music or dancing; resident carpenter; contractor, electrician, painter, plumber, or artisan; but not including a beauty parlor, barber shop, convalescent or nursing home, tourist home, or similar establishment offering services to the general public.

Household - any number of individuals living together as a single housekeeping unit.

Lot - a single area of land in one ownership defined by metes and bounds or boundary lines in a recorded deed or on a recorded plan. The area of a lot shall not include any part of a way, public or private, which adjoins the lot.

Medical Marijuana Cultivation Site (Cultivation Site) – an area within a building where marijuana plants are cultivated solely for medical purposes.

Medical Marijuana Treatment Center (MMTC) – A not-for-profit entity registered under 105 CMR 725.100, to be known as a registered marijuana dispensary (RMD), that acquires, cultivates, possesses, processes (including development of related products such as edible marijuana infused products (MIPs), tinctures, aerosols, oils, or ointments), transfers, transports, sells, distributes, dispenses, or administers marijuana, products containing marijuana, related supplies, or educational materials to registered qualifying patients or their personal caregivers. Unless otherwise specified, MMTC refers to the site(s) of dispensing, cultivation, and preparation of marijuana.

Mobile Home - a detached residential dwelling unit designed for transportation after fabrication on streets or highways on its own wheels or on flatbed or other trailers, and arriving at the site where it is to be occupied as a dwelling complete and ready for occupancy except for minor and incidental unpacking and assembly operations, location on jacks or other temporary or permanent foundations, connections to utilities, and the like. A travel trailer or modular home is not to be considered a mobile home.

Multiple Family Dwelling - any dwelling which contains more than two (2) dwelling units.

Premises - a lot together with all buildings and structures thereon and all uses thereof.

Recorded or Of Record - recorded in Worcester County Registry of Deeds or registered in the Worcester Registry District of the Land Court.

Right of Way Line - the dividing line between a street and a lot.

Single Family Dwelling - any dwelling which contains only one (1) dwelling unit.

Street - a public way or a way having, in the opinion of the Planning Board, sufficient width, suitable grades, and adequate construction to serve adequately the proposed use of the land abutting thereon or served thereby.

Structure - anything constructed or erected, the use of which requires a fixed location on the ground or attached to something located on the ground, but excluding a fence, boundary wall, public utility pole, public utility supporting device or a structure with less than one hundred (100) square foot ground coverage and a height of less than eight (8) feet.

Two Family Dwelling - any dwelling which contains two (2) dwelling units.

Use - the purpose for which land or a building or structure is occupied or used.

1.5 Non-Conforming Buildings, Structures, and Uses

Any building, structure or use lawfully in existence or lawfully begun before the enactment of this by-law or any amendment hereto which by virtue of this by-law or such amendment does not comply with the regulations set forth herein shall be subject to the provisions of Massachusetts General

Laws Chapter 40A, Section 6 or any successor provision thereto applicable to non-conforming buildings, structures and uses.

No extension or alteration of a pre-existing nonconforming structure or use shall be permitted unless there is a grant of a special permit upon a finding by the Planning Board that such change, extension or alteration shall not be substantially more detrimental than the existing nonconforming use or structure to the neighborhood.

1.51 Nonconforming Single and Two-Family Residential Structures

Nonconforming single and two-family residential structures may be reconstructed, extended, altered, or structurally changed upon a determination by the Inspector of Buildings that such proposed reconstruction, extension, alteration, or change does not increase the nonconforming nature of said structure. The following circumstances do not increase the nonconforming nature of said structure:

- a. a reconstruction, extension, alteration, or change to a structure located on a lot with insufficient frontage that complies with all current area, setback, yard, and building height requirements
- b. a reconstruction, extension, alteration, or change to a structure which encroaches upon one or more required yard or setback areas, where the alteration will comply with all current setback, yard, and building height requirements, and the lot complies with the district's minimum lot size requirement
- c. a reconstruction, extension, alteration, or change to a structure that will not increase the footprint of the existing structure provided that the existing height restrictions shall not be exceeded and the lot complies with the district's minimum lot size requirement

In the event that the Inspector of Buildings determines that the proposed reconstruction, extension, alteration, or change would increase the nonconforming nature of such structure, the Planning Board may, by special permit, allow such reconstruction, extension, alteration, or change where it determines that the proposed modification will not be substantially more detrimental than the existing nonconforming structure to the neighborhood.

SECTION 2. ESTABLISHMENT OF DISTRICTS

2.1 Classes of Districts

For the purposes of this by-law, the Town of Warren is hereby divided into the following districts:

RU = Rural

R = Residential

V = Village

C = Commercial

GWP = Ground Water Protection District

FP = Flood Plain District

MCOD = Mill Conversion Overlay District

MDOD = Major Development Overlay District

2.2 Incorporation of Zoning Map

Said districts are located and bounded as shown on a map entitled "Zoning Map of Warren, Massachusetts" dated 1984 and on file in the office of the Town Clerk. The Zoning Map, together with all explanatory matter thereon, is hereby made part of this by-law.

2.3 Location of Boundaries

The location of the boundary lines on the map referred to in section 2.2 shall be determined as follows:

2.31 Where the boundary lines are within the lines of streets or ways, the centerlines of such streets or ways shall constitute the boundary lines.

2.32 Where the boundary lines follow the location of property or lot lines, and the exact location of boundary lines is not indicated by means of figures, distances or otherwise, the property or lot lines shall be the boundary lines.

2.33 Boundary lines located just outside of street lines shall parallel street lines, and all figures shown on the map between boundary lines and street lines are the distances in feet of boundary lines from street lines, such distances being measured at right angles to street lines unless otherwise indicated.

2.34 In all cases which are not otherwise covered by the provisions of this section, the location of boundary lines shall be determined by the distances in feet, if given, from other lines on the map, or if distances are not given, then by the scale of the map.

2.35 Wherever any uncertainty exists as to the exact location of a boundary line, the location of such line as indicated by the zoning map shall be determined by the Town of Warren Building Inspector.

2.36 Divided Lots

If a district boundary line divides any lot existing at the time such district line is adopted, the lot shall be regulated as follows:

- a. the less restrictive use regulations for any district in which the lot has frontage shall be applicable for 30 feet into the more restricted district, and
- b. the applicable dimensional requirements shall be those of the district in which the majority of the lot's frontage lies.

SECTION 3. USE REGULATIONS

3.1 Basic Requirements

No new building or structure shall be constructed or used, in whole or in part, and no building or structure, or part thereof, shall be altered, enlarged, reconstructed or used and no land shall be used for any purposes or in any manner other than for one or more uses as set forth in Section 3.2, Schedule of Use Regulations, of this bylaw and in accordance with the following notation:

Y = Use Permitted

SP = Use allowed under Special Permit by the Planning Board as provided in Section 5.1 hereafter.

N = Use Prohibited

Uses in the Groundwater Protection District are regulated under Section 9 of this by-law.

Mill Conversion Project is regulated by Section 13.

Permitted uses and uses allowed by the Planning Board by Special Permit shall be in conformity with all dimensional requirements and all other applicable requirements of this by-law.

In all districts no use shall be permitted which will produce a nuisance or hazard from fire or explosion, toxic or corrosive fumes, gas, smoke, odors, obnoxious dust or vapor, harmful radioactivity, offensive noise or vibration, flashes, objectionable effluent or electrical interference which may affect or impair the normal use and peaceful enjoyment of any premises in the Town.

Notwithstanding any other provision of this by-law, no land in the Town of Warren may be used for the collection, treatment, storage (other than temporary storage not to exceed sixty (60) days associated with and necessary for the conduct of an authorized industrial use in the Town of Warren) burial, incineration or disposal of radioactive or hazardous waste, materials or substances, including but not limited to waste classified as low level radioactive waste.

3.2 Schedule of Use Regulations

	District					
	RU	R	V	C	MCOD	MDOD
3.21 Agricultural						
1. All agricultural, horticultural and floricultural uses	Y	Y	Y	Y		
2. Roadside stand for the sale of products the major portion of which are grown on the premises	Y	Y	Y	Y		
3. Greenhouse	Y	Y	Y	Y		
3.22 Residential						
1. Single Family Dwelling	Y	Y	Y	Y		
2. Two Family Dwelling	N	Y	Y	N		
3. Multi-family dwelling up to 12 dwelling units	N	N	Y	N		
4. (a) New Mobile Home or New Mobile Home Park	N	N	N	N		
(b) Mobile homes in or adjacent to a mobile home park and mobile home parks which have been occupied for at least ten years continuously	SP	N	N	N		
5. Renting of one or two rooms and the furnishing of board by a resident family to not more than three non-transient persons	Y	Y	Y	N		
6. Office of a resident physician, dentist, attorney, architect, engineer, real estate or insurance broker, or practitioner of any other recognized profession or studio of a resident artist or musician	Y	Y	Y	Y		
7. Customary home occupation operated by a resident on the premises	Y	Y	Y	Y		
8. Uses accessory to residential uses, including the boarding of up to three (3) horses	Y	SP	SP	Y		
9. Use of up to three rooms for provision of "Bed & Breakfast" facilities	Y	Y	Y	Y		
3.23 Commercial						
1. Retail store distributing to the general public	N	N	Y	Y		
2. Consumer or commercial service establishments dealing directly with the general public	N	N	Y	Y		

	District					
	RU	R	V	C	MCOD	MDOD
3. Undertaking establishments or funeral home	N	N	Y	Y		
4. Animal or veterinary hospital; kennel	SP	SP	N	Y		
5. Riding stable or boarding of horses	SP	SP	SP	N		
6. Restaurant, not including drive-in or fast order food establishments	SP	Y	Y	Y		
7. Drive-in or fast order food establishments	N	N	SP	Y		
8. Business or professional office, including medical and dental	SP	SP	Y	Y		
9. Bank	N	N	Y	Y		
10. Insurance or real estate office	N	N	Y	Y		
11. Commercial indoor recreation establishment	N	N	SP	Y		
12. Commercial outdoor recreation establishments not including drive-in movies	SP	SP	SP	SP		
13. Hotel, motel, inn, tourist court	N	SP	SP	Y		
14. Crafts, teaching & selling to the public	SP	SP	Y	Y		
15. Contracting business and equipment	SP	N	N	SP		
16. Stump and brush dump	SP	SP	N	N		
17. Drinking establishments that do not provide seated food services prepared on-site under a retail food permit issued by the Town	N	N	SP	SP		N
3.24 Automotive Sales and Services						
1. Service station or car wash	N	N	SP	SP		
2. Repair garage for motor vehicles, including incidental and limited outdoor storage of vehicles, but not including junkyard	N	N	SP	Y		
3. Salesroom for the sale of new and used motor vehicles, including indoor storage and service facilities	N	N	SP	Y		
4. Junkyard, Automobile Recycling Facility, and Auto Auction Services/Facility	N	N	N	N		N

	District					
	RU	R	V	C	MCOD	MDOD
3.25 Industrial						
1. Warehouse and storage facility	SP	SP	SP	Y		
2. Manufacturing or industrial use	N	SP	SP	SP		
3. Increase in present industrial use	SP	SP	Y	SP		
4. Commercial Solar Energy Facility	N	N	N	SP		SP
5. Renewable/Alternative Energy R&D Facility	N	N	Y	Y		
6. Renewable/Alternative Energy Manufacturing Facility	N	N	Y	Y		
7. Commercial Energy Storage Systems, including batteries	N	N	N	N		N
8. Commercial Wind Energy Facilities	SP	SP	N	SP	N	SP
3.26 Institutional, Educational, and Recreational						
1. Nursery school or other use for the day care of children	Y	Y	Y	Y		
2. Public buildings and premises for government use including public libraries, but not including dumps	Y	Y	Y	Y		
3. Golf, swimming, skating or tennis club, or other social civic or recreational lodge or club, not conducted as a business	SP	SP	SP	SP		
4. Family campground	SP	SP	N	N		
5. Nursing homes, convalescent homes & hospitals	SP	SP	Y	Y		
6. Refuse disposal area maintained by the Town for use of residents only	SP	SP	N	N		
7. Marijuana Establishment	N	N	N	SP	SP	SP
8. Marijuana Cultivators	SP	N	N	N	N	N
9. Marijuana Retailers (Max 1 in each district)	N	N	N	SP	SP	N
10.MMTC-CP	SP	N	N	SP	SP	SP
11.MMTC-DR (Max 2 in entire town)	N	N	N	SP	SP	N
3.27 Accessory Apartments (See below.)	SP	SP	SP	SP		
3.28 Earth Removal (Pursuant to Section 8.)	SP	SP	SP	SP		

3.27 Accessory Apartments

1. Intent and Purpose

Whereas, the Town provides a variety of types of housing to meet the needs of its residents; and Whereas, the Town of Warren wishes to expand the permitted types of housing to provide an opportunity for older persons who cannot physically or financially maintain their own home to live in homes of relatives; and Whereas, the Town wishes to protect the stability, property values and the single-family residential character of neighborhoods and at the same time accommodate so-called in-law apartments; and

Whereas, the Town wishes to authorize the creation of such accessory apartments and at the same time encourage the Town to monitor conversions for code compliance;

Now, therefore, the "Accessory Apartment" Zoning By-law is hereby established.

2. Special Permit Procedures and Conditions

The Planning Board may authorize an Accessory Apartment by Special Permit in any residential or the Commercial district, provided that each of the following standards and criteria are met:

- a. The Accessory Apartment may be a complete, separate housekeeping unit that functions as a separate unit from the one-family detached dwelling of which it is a part. Such unit may be occupied only by persons related by blood or marriage to the owner(s) of the one-family dwelling.
- b. Only one Accessory Apartment may be created within a one family dwelling.
- c. An Accessory Apartment may only be created in a dwelling which would otherwise be classified as a one-family detached dwelling.
- d. The lot on which the single-family house is located must have a minimum of 15,000 square feet and must comply with all applicable zoning requirements for its district after the accessory apartment has been created.
- e. Adequate provisions must be made for the disposal of sewage, waste, and drainage generated by the occupancy of the entire dwelling including the Accessory Apartment in accordance with the requirements of the Warren Board of Health and the adequacy of water supply must be proven.
- f. The Accessory Apartment shall be designed so that the appearance of the building remains that of a one-family detached dwelling as much as is feasibly possible. Any new entrances shall be located on the side and rear of the building.
- g. The Accessory Apartment shall be clearly a subordinate part of the one - family dwelling. It shall be no greater than seven hundred (700) feet nor have more than (1) bedroom. Occupancy shall be limited to three persons.
- h. At least three (3) off-street parking spaces must be provided for any one-family dwelling which has an Accessory Apartment.
- i. The construction of any Accessory Apartment must be in conformity with State Building Code requirements.
- j. Any Accessory Apartment Special Permit shall (a) be personal to the owner(s) to which it is granted; (b) automatically terminate if no owner of the one-family dwelling occupies the one-family dwelling as his or her principal residence (c) only allow the relatives specified in the application for the Special Permit to live in the Accessory Apartment and (d) automatically terminate on any transfer of the fee ownership of the one-family dwelling except in the instance where there is more than one owner, a transfer among owners.
- k. No apartments shall be permitted except in accordance with the provisions of this Accessory Apartment Zoning By-Law or as otherwise specifically authorized by the Town of Warren By-laws.

3. Application Procedure

3.1 The application for the submission and approval of a Special Permit for an Accessory Apartment in the owner-occupied one-family dwelling shall be the same as prescribed in Section 5 of the Warren Zoning By-Law, except that said Special Permit application shall include a notarized letter of application from the owner(s) stating that (a) he/she/they will occupy one of the dwelling units on the premises and (b) the name(s) of the relatives who will occupy the Accessory Apartment.

3.2 Upon receiving a Special Permit, the owner(s) must file on the subject property a Declaration of Covenants in the form attached with appropriate insertions at the Worcester District Registry of Deeds or the Worcester Registry District of the Land Court, as applicable. A time-stamped copy of the recorded Declaration shall be provided to the Planning Board and to the Building Inspector as a precondition to the issuance of any building permit.

SECTION 4. DIMENSIONAL REQUIREMENTS

4.1 Basic Requirements

Except to the extent permitted under Section 1.5 with respect to non-conforming buildings and structures, no building or structure in any district shall be constructed or altered, enlarged, extended or reconstructed which does not conform to the Dimensional requirements as set forth in Section 4.2 and 4.3 of this by-law.

4.2 Schedule of Dimensional Requirements

District	Use	Min Lot Size (Sq. Ft.)	Min Lot Frontage (Ft.)	Max Height (Ft.)	Front Setback (Ft.)	Side & Rear Setback (Ft.)
Rural	Single Family Dwelling	45,000	150	35	30	15
	Wireless Towers	45,000	75	(2)	(2)	(2)
	All Other	45,000	150	35	NA	NA
Residential	Single Family Dwelling	30,000	100	35	30	15
	Two Family Dwelling	40,000	150	35	50	50
	Wireless Towers	40,000	75	(2)	(2)	(2)
	All Other	30,000	100	35	NA	NA
Village	Single Family Dwelling	10,000	75	40	20	15
	2-4 Family Dwelling	6,000 / unit	75	40	20	15
	Multi-Family Dwelling (5 or more units)	6,000 / unit	100	40	25	15
	Wireless Towers	40,000	75	(2)	(2)	(2)
	All Other	15,000	100	40	NA	NA
Commercial	Single Family Dwelling	30,000	100	40	30	15

	Commercial Uses in §3.23	20,000	80	40	20	10 (1)
	Wireless Towers	40,000	75	(2)	(2)	(2)
	All Other	40,000	150	40	20	20

Footnotes:

1. In the Commercial district, the setback shall be increased to fifty feet (50') when abutting a Residential or Rural district or existing dwelling.
2. Wireless communications towers shall comply with the requirements of Section 7, Siting of Wireless Communications Facilities.

4.3 Special Dimensional Requirements

4.31 Yard Regulations Applicable to Single Family Dwellings

In the Rural, Residential, and Commercial Districts, each single family dwelling shall be set back at least 30 feet from the side layout of any highway and at least 15 feet from any other property line of the lot upon which the dwelling is situated. In the Village District, each single family dwelling shall be set back at least twenty (20') feet from the side layout of any highway and at least 15 feet from any other property line of the lot upon which the dwelling is situated.

4.32 Dimensional Regulations Applicable to Two, Three, and Four Family Dwellings.

For two family dwellings in the Residential District, the minimum lot size shall be 40,000 sq. ft., and said lot shall have a minimum frontage of 150 feet which dimension shall be maintained up to a depth of at least 150 feet. Each such dwelling shall be set back at least 50 feet from the side layout of any highway and from all other property lines of the lot upon which the dwelling is situated. In the Village District, in the case of two, three, or four family dwellings, the minimum lot size shall be 6,000 sq. ft. per dwelling unit, and said lot shall have a minimum frontage of seventy-five (75) feet. Each such dwelling shall be set back at least twenty (20) feet from the side layout of any highway and fifteen (15) feet from all other property lines of the lot upon which the dwelling is situated.

4.33 Dimensional Regulations Applicable to Multi-Family Dwellings of More Than Four Dwelling Units.

In the Village District, in the case of multi-family dwellings containing five or more dwelling units, the minimum lot size shall be 6,000 sq. ft. of lot area for each dwelling unit, and said lot shall have a minimum frontage of one hundred (100) feet which dimension shall be maintained up to a depth of at least 200 feet. Each such dwelling shall be set back at least twenty-five (25) feet from the side layout of any highway and fifteen (15) feet from all other property lines of the lot upon which the dwelling is situated.

4.34 Provisions Applicable to Existing Lots.

No existing lot shall be changed as to size or shape so as to result in a violation of the requirements of this by-law. The lot area and lot frontage requirements of this by-law shall not apply to a lot having less than the required area or frontage, if said lot has been held in separate ownership by deed duly recorded with the Registry of Deeds prior to the effective date of this by-law. In such cases, any dwelling constructed on such lot shall be set back at least 15 feet from all boundaries of the lot.

4.35 Dimensional Requirements in Open Space Residential Developments

Dimensional requirements for lots in an Open Space Residential Development (OSRD) that have access on roads within the development and not from an existing public way are set forth in Section 11.3.2 of the Zoning Bylaws.

4.36 Mill Conversion Overlay District

See Section 13.

4.37 Major Development Overlay District

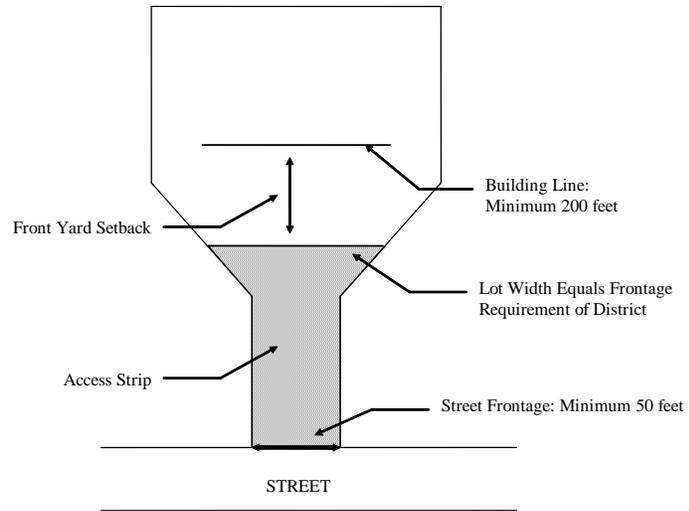
See Section 14.

4.4 Rear Lots

In Rural and Residential Districts, the Planning Board may grant a special permit for a Rear Lot provided the Lot complies with Section 5.1, Special Permits, and meets all of the requirements set forth below.

1. The minimum lot area required for a Rear Lot shall be four (4) acres. The "Access Strip", as shown on the illustration below, shall not be included in the calculation of the minimum lot area of the lot. The measurement of the area for a Rear Lot shall begin where the lot width widens to the street frontage width required for a regular lot in the district. The applicant shall show this line on the plan and include the area of the Access Strip and the area of the remainder of the lot.
2. A Rear Lot shall have a minimum continuous frontage of fifty feet (50'). The lot shall maintain a minimum width of fifty feet (50') between the frontage street and the nearest part of the dwelling.
3. The width of the lot where the building will be located (Building Line) shall be a minimum of two hundred feet (200'). The plan shall show the proposed dwelling location.
4. Upon approval of the special permit, the applicant may submit a plan showing the Rear Lot to the Planning Board for endorsement under M.G.L. Chapter 41 §81P.
5. Any plan for approval or endorsement shall clearly identify the lot as a Rear Lot and bear a statement that such lot shall not be further divided to reduce its area or to create additional building lots.
6. All other dimensional requirements of the district in which the lot is located shall apply.
7. The frontage of any two Rear Lots shall be separated by at least one normal frontage lot.

8. The access drive shall have a minimum width of sixteen feet (16') and a maximum grade of ten percent (10%).



SECTION 5. SPECIAL PERMITS AND VARIANCES

5.1 Special Permits

For the purpose of this by-law, the Warren Planning Board shall be the Special Permit Granting Authority. Said Board may grant, in the exercise of its discretion, a Special Permit for a proposed use if it finds that:

1. That the premises in question are appropriately located and suitable for the proposed use;
2. That the use will be compatible with other uses permitted as of right in the same district;
3. That the use will not be a nuisance or serious hazard to vehicles or pedestrians;
4. That adequate and appropriate facilities will be provided for the proper operation of the proposed use; and
5. The proposed use is otherwise in harmony with the general purpose and intent of this by-law.

5.11 Special Permits shall be issued only following a public hearing held within 65 days after written application shall be filed by the applicant with the Special Permit Granting Authority, a copy of which shall forthwith be given by the applicant to the Town Clerk. The Town Clerk shall promptly forward copies of the application to the Town of Warren Conservation Commission and Board of Health for their respective review and comment. The Conservation Commission and Board of Health may make such recommendations with respect to the application to the Special Permit Granting Authority as they deem appropriate, provided that failure to make such recommendations within 35 days after receipt of the application by such Commission or Board shall be deemed lack of opposition thereto.

5.12 The Special Permit Granting Authority shall comply with the requirements regarding publication, posting, notice, and public hearing set forth in Sections 9 and 11 of Massachusetts General Laws Chapter 40A as such requirements may hereafter be amended.

5.13 A Special Permit granted under this section shall lapse in two years, and including such time required to pursue or await the determination of an appeal from the grant thereof, if a substantial use thereof has not commenced, except for good cause.

5.14 The costs of public hearings and the publication and notification associated therewith shall be borne by the applicant for a Special Permit.

5.15 When considering a Special Permit for industrial use, the Special Permit Granting Authority shall also consider:

- 1) if there will be storage of flammable or explosive materials on the site. This must be done in a manner which will eliminate serious exposure hazards to life and property or a Special Permit will not be granted.
- 2) if any draw or discharge is contemplated from the Quaboag River. No draw or discharge will be allowed that would exceed 100,000 gallons of water per day or that would degrade the Class B status of the river.
- 3) if any offensive odor will be generated from the facility. No offensive odors will be allowed that are perceptible at the property line of the lot on which the facility is located.
- 4) if any air contaminants will be discharged from the facility. A Special Permit would not be granted if any noxious, toxic, or corrosive fumes or gases or any appreciable dust or smoke would be emitted.
- 5) if the facility would create noise. Noise of a decibel level that would prove to be a health hazard would not be allowed.

- 6) the proposed circulation of traffic within the site and all adjacent ways. Adequate plans to address traffic concerns must be presented or no Special Permit will be granted.

5.16 Written confirmation from the Board of Assessors and the Collector of Taxes that all Real Estate, Rollback and Conveyance taxes, liens - including Chapter 61 liens, betterments, special assessments, sewer/water - are satisfied in full.

5.2 **Variances**

The Board of Appeals shall have the power to hear and decide appeals or petitions for variances from the terms of this by-law, with respect to particular land, buildings, or structures. Such variances shall be granted only in cases where the Board of Appeals finds all the following.

1. A literal enforcement of the provisions of this by-law would involve a substantial hardship, financial or otherwise, to the petitioner or appellant.
2. The hardship is owing to circumstances relating to the soil conditions, shape, or topography of such land, buildings, or structures and especially affecting such land, buildings, or structures but not affecting generally the zoning district in which they are located.
3. Desirable relief may be granted without:
 - a. substantial detriment to the public good; and
 - b. without nullifying or substantially derogating from the intent or purpose of this by-law.

If the rights authorized by a variance are not exercised within one year from the date of the grant of such variance, they shall lapse and may be re-established only after notice and a new hearing.

5.3 **Site Plan Approval**

5.31 Purpose: The purpose of this section is to provide for a comprehensive review of site plans for those uses and structures that may have a significant impact on adjacent properties, the Town's character, infrastructure, environment, and quality of life. Before applying for a building permit, all projects requiring site plan review, as required by this Bylaw, shall have obtained site plan approval from the Planning Board.

5.32 Uses Requiring Site Plan Review and Approval: Site plan approval shall apply to the following types of buildings and uses¹:

1. In Village and Commercial Districts, any multi-family dwelling, any construction, reconstruction, or enlargement of a non-residential building or parking area, any change of use, and any increase in floor area for a Commercial, Automotive Sales and Service, Industrial, or Institutional, Educational and Recreational Use listed in Section 3, Use Regulations.
2. In Rural and Residential Districts, any use that requires a special permit, and any other non-residential use that:
 - a. involves new construction greater than three thousand (3,000) square feet of gross floor area²; or
 - b. enlargement of a building by three thousand (3,000) square feet or more of gross floor area.

5.33 Site Plan Review Procedure

1. Adoption of Regulations and Review Fees: The Planning Board shall adopt regulations pertaining to procedures for submission and approval of site plans. In

¹ Site plan review shall not apply to single family homes.

² As defined in the State Building Code, 780 CMR 1002.1.

addition, the Board may retain a professional engineer, architect, landscape architect or other professional consultant to advise the Board on all aspects of the site plan. The Planning Board shall adopt a fee schedule that accurately reflects the cost of reviewing site plans and regulations regarding the use of outside consultants as provided in M.G.L. c.44, §53G.

2. **Public Hearing:** The Planning Board shall hold a public hearing on the completed application. For site plan review that does not involve an application for a special permit, notice of this Public Hearing shall be given in accordance with M.G.L. c. 40A, §11.
3. **Decision:** The Planning Board shall file its written decision with the Inspector of Buildings and the Town Clerk within ninety (90) days of the close of the public hearing. This time limit may be extended by written agreement between the applicant and the Planning Board. Failure of the Planning Board to take final action within said ninety (90) days, or extended time, shall be deemed to be approval of the application. Approval of a site plan shall require three affirmative votes of the Board. The Planning Board's final action shall consist of either:
 1. Approval of the site plan based on a determination that the proposed project will constitute a suitable development and will not result in substantial detriment to the neighborhood or the Town.
 2. Disapproval of the site plan with an explanation of the reasons for such disapproval and the elements of the proposal the Planning Board finds are not capable of revision or are so deficient in important elements and intrusive on the interests of the public that they warrant disapproval.
 3. Approval of the site plan subject to such reasonable conditions, modifications, and restrictions as the Planning Board may deem necessary to insure that the proposed project will constitute a suitable development and will not result in substantial detriment to the neighborhood or town.

5.34 Uses Also Requiring a Special Permit from the Planning Board: In cases where a site plan review and a special permit are required from the Planning Board, the applicant shall file site plan and special permit applications and fees concurrently with the Planning Board. The Board shall act concurrently on both applications, and the time periods for special permits shall apply to the site plan and special permit decisions.

5.35 Standards for Approval: The Planning Board shall apply the following standards in reviewing all applications for site plan approval:

1. Conformance with all the provisions of the Warren Zoning Bylaw;
2. Provisions for convenient and safe vehicular and pedestrian movement within the site, for driveway openings that are convenient and safe in relation to the adjacent street network, and for adequate emergency vehicle access;
3. Provisions for adequate parking and loading spaces, and site design that minimizes visual intrusion of these areas from public ways;
4. Landscaping measures taken to screen the appearance of off-street parking areas from abutting properties and to create visual and noise buffers that minimize the encroachment of the proposed use on neighboring land uses;
5. Adequate provision for controlling surface water runoff to minimize impacts on neighboring properties and streets and to prevent soil erosion and sedimentation of any surface waters;

6. Measures taken to minimize contamination of ground water from sub-surface sewage disposal and operations involving the use, storage, handling, or containment of hazardous substances;
 7. Protection of adjoining property or the Town from any undue disturbance caused by excessive or unreasonable noise, smoke, vapors, fumes, dust, glare, and similar impacts.
- 5.36 Site Plan Conditions:** The Planning Board may impose conditions, safeguards and limitations on time and operations as may be appropriate for the protection of the natural environment, the neighborhood, and the Town. Such conditions shall be imposed in writing in the site plan approval decision and shall be enforced by the Inspector of Buildings. The Board may require the applicant to post a bond or other security in an amount satisfactory to the Planning Board for compliance with these conditions.
- 5.37 Right of Appeal:** Any person aggrieved by a decision of the Planning Board may appeal to the Superior Court or to the Land Court in accordance with M.G.L. Chapter 40A, Section 17.
- 5.38 Occupancy Permit:** The Inspector of Buildings shall not issue a permanent occupancy permit until s/he receives an as-built plan that demonstrates that the work proposed on the approved site plan, including all associated off-site improvements, has been completed in accordance with the approved plan.

SECTION 6. ADMINISTRATION

6.1 Enforcement

This by-law shall be enforced by the Town of Warren Building Inspector.

6.2 Board of Appeals

6.21 Membership

Under this by-law the Board of Appeals as presently established shall assume power to act on all matters required of a Zoning Board of Appeals under Massachusetts General Laws Chapter 40A.

6.22 Appeals

Any person aggrieved by the refusal or failure of the Town of Warren Building Inspector to issue a permit or license on the grounds of non-compliance with these by-laws may appeal to the Board of Appeals as provided in Massachusetts General Laws Chapter 40A, as said statute may hereafter be amended.

The Board of Appeals shall have and exercise all other powers and authority granted to it under the provisions of Massachusetts General Laws Chapter 40A, as said statute may hereafter be amended.

6.3 Penalty

Any party violating any provision of this by-law shall be fined not more than twenty (20) dollars for each offense. Each day that a willful violation continues shall constitute a separate offense. In addition, violations of the Groundwater Protection By-law, Section 9, shall be governed by Section 9.7 (G).

6.4 Amendment

This by-law may be amended from time to time in accordance with the provisions of Massachusetts General Laws Chapter 40A, as said statute may hereafter be amended.

6.5 Validity

The invalidity of any provision of this by-law shall not invalidate any other provision hereof.

6.6 Other Regulations

This by-law shall not interfere with or annul any other Town of Warren by-law, rule, regulation or requirement, provided that, unless specifically excepted, where this by-law is more stringent, it shall control.

6.7 Repeal of Existing By-Laws

Upon the effective date of this by-law, the following provisions of the By-Laws of the Town of Warren are repealed and replaced by this by-law.

SECTION 7. SITING OF WIRELESS COMMUNICATIONS FACILITIES

7.1 Purpose

1. To promote the health, safety, and general welfare of the community;
2. To guide sound development;
3. To conserve the value of lands and buildings;
4. To encourage the most appropriate use of the land;
5. To minimize the adverse aesthetic impact of wireless communication facilities;
6. To minimize the number of wireless communication facility sites;
7. To encourage co-location by wireless communication companies on wireless communication facilities;
8. To ensure that WCF are sited, designed and screened in a manner that is sensitive to the surrounding neighborhood; and
9. To avoid damage to adjacent properties

7.2 Definitions

1. Wireless Communications Facilities ("WCF") - any and all materials, equipment, storage structures, towers, dishes and antennas, other than customer premises equipment, used by a commercial telecommunications carrier to provide telecommunications or data services. This definition does not include facilities used by a federally licensed amateur radio operator.
2. Tower - Any equipment mounting structure that is used by a commercial telecommunications carrier primarily to support reception or transmission equipment and that measures twelve (12') feet or more in its longest vertical dimension. Only monopole towers are allowed.
3. Communications Device - Any antennae, dish or panel mounted out of doors on an already existing building or structure used by a commercial telecommunications carrier to provide telecommunications services. The term "communications device" does not include a tower.
4. Stealth Communication Facilities - any newly constructed or installed building, building feature, or structure designed for the purpose of hiding or camouflaging WCF, Tower(s), and Communication Device(s) installed therein or thereon, including but not limited to church steeples, flag poles, historic-replica barns, silos, water towers, bell towers, etc.
5. WCF Accessory Buildings - A structure designed to house both mechanical and electronic equipment used in support of Wireless Communications Facilities.

7.3 General Requirements

1. The provisions of this Section 7 apply to all wireless communications facilities.
2. WCF which include a Tower may be erected or installed in all zoning districts in compliance with the provisions of this Article and upon the grant of a Special Permit and site plan approval by the Planning Board.
3. Stealth Communications Facilities, communication devices and WCF accessory buildings may be allowed in any zoning district subject to a grant of a Special Permit by the Planning Board, provided that they are properly screened and conform to the requirements set forth in this by-law.
4. Notwithstanding anything to the contrary contained in the Zoning Bylaw, the Planning Board shall be authorized to grant a special permit for the erection or installation of WCF.

5. No WCF shall be erected or installed out of doors except in compliance with the provisions of this Article. The provisions of this Article apply to all WCF whether as a principal use or an accessory use and to any and all extensions or additions to, or replacement of, existing WCF.
6. Existing Towers may be reconstructed, expanded, and/or altered in all zoning districts subject to a Special Permit granted by the Planning Board, provided that they conform to all of the requirements set forth in this Zoning By-law.
7. New Antennas, Communications Devices, and WCF Accessory Buildings may be located totally within existing buildings and existing structures in all zoning districts.
8. The Town acting through its Planning Board may require the applicant to pay reasonable fees for professional review of the applicant's proposal by a professional or radio frequency engineer, attorney or other qualified professional.
9. WCF proposed by a municipal department of the Town of Warren shall be exempt from the provisions of this Section 7.

7.4 Review Standards

In addition to the Special Permit Review Criteria under Mass Gen. Laws c. 40A, Section 9 and Section 5.1 of this Bylaw, the Planning Board shall also review the Special Permit application in conformance with the following objectives:

1. When considering an application for a WCF which includes a Tower, the Board shall take into consideration the proximity of the facility to residential dwellings.
2. WCF which include a Tower shall be considered only after a finding that existing or previously approved Towers, buildings, or structures cannot accommodate the proposed users. New Towers shall be considered by the Planning Board only upon a finding by the Planning Board that: (a) the applicant has used reasonable efforts to co-locate its proposed Wireless Communications Facilities on existing or approved facilities, buildings or structures; and (b) that the applicant either was unable to negotiate commercially reasonable lease terms with the owner of any existing or approved facility, building or structure that could accommodate the proposed facilities from both structural engineering (i.e., the height, structural integrity, weight bearing and wind-resistant capacity of the existing or approved facility) and radio frequency engineering perspectives (i.e., height, coverage area etc.); or there neither exists nor is there currently proposed any facility building or structure that could accommodate the proposed facilities from structural and radio frequency engineering perspectives.
3. When considering an application for a Communications Device proposed to be placed on an already existing building or structure, the Planning Board shall take into consideration the visual impact of the unit from the abutting neighborhood and streets and the proximity of the unit to residential dwellings.
4. A Stealth Communication facility shall be allowed only if it is compatible architecturally and visually with the neighborhood in which it is to be placed and if it is sufficiently similar in size to buildings and structures in the neighborhood.
5. The Planning Board shall act on a request for the placement of a WCF within time periods specified by MGL chapter 40A §9 and any denial shall be in writing and supported by substantial evidence contained in the record.

7.5 Development Requirements

1. Any proposed tower must be of the minimum height necessary to accommodate the use and in any event shall not be more than one hundred fifty (150') feet in height unless the applicant demonstrates to the Board's satisfaction that greater height is required to provide service in the area.
2. The applicant shall arrange to fly a three (3') foot diameter balloon or place a crane at the proposed site at the maximum height of the proposed Tower. The date and location of the

demonstration shall be advertised at least fourteen (14) days, but not more than twenty-one (21) days, before the flights in a newspaper of general circulation in the Town.

3. Visual impacts of Towers and Communications Devices must be minimized by use of appropriate paint.
4. Night lighting of Towers shall be prohibited unless required by the Federal Aviation Administration.
5. The siting of Towers shall be such that the view of the Tower from other areas of the Town shall be as minimal as possible and shall be screened from abutters and residential neighbors as feasible.
6. Shared use of Towers by commercial telecommunications carriers is required unless such shared use is shown to be not feasible.
7. All Towers shall be designed to accommodate the maximum number of users technologically practical.
8. Every Tower must be set back from the property line of the lot on which it is located in an amount at least equal to the height of the Tower.
9. The height of Communications Devices located on a building shall not exceed fifteen (15') feet in height above the roof line of the building.
10. Communication Devices shall be situated on or attached to a building or structure in such a manner that they are screened whenever possible, shall be painted or otherwise colored to minimize their visibility, and shall be integrated into such structures or buildings in a manner that blends with the structure or building. Freestanding antennas or dishes shall be located on the landscape, screened, and painted in a manner so as to minimize visibility from abutting streets and residents.
11. Fencing shall be provided to control access to all WCF which include Towers.
12. All Towers must comply with all applicable Federal Communications Commission Rule and Regulations; annual certification of compliance must be provided.
13. All Towers must comply with all Federal Aviation Administration Rule and Regulations.
14. Every Tower shall be setback from existing buildings and public ways in an amount at least equal to one and one-half (1-1/2) times the height of the tower.
15. Accessory buildings and or storage sheds shall not exceed two (2) stories in height; no more than three hundred (300) square feet in floor area shall be available for each user; any buildings or storage sheds added to a site must be attached to and abut the original building or storage shed and must be compatible in appearance.
16. The maximum amount of vegetation shall be preserved.
17. Every tower shall be setback from existing schools, hospitals, and residential structures in an amount at least equal to two times the height of the tower.

7.6 Conditions

The following conditions shall apply to all grants of Special Permits pursuant to this Article:

1. For all WCF, annual certification of compliance with Federal Communications Commission, Federal Aviation Administration and federal, state, and local laws, rules and regulations must be provided.
2. If a Tower is on Town property, a Certificate of Insurance for liability coverage must be provided naming the Town as an additional insured.

3. If the Tower is on Town property, an agreement whereby the user indemnifies and holds the Town harmless against any claims for injury or damage resulting from or arising out of the use or occupancy of the Town owned property by the user.
4. For Towers, the execution of an agreement with the Town whereby the user shall, at its own expense, and within thirty (30) days upon termination of the lease or thirty (30) days of nonuse of the Tower, restore the premises to the condition it was in at the onset of the lease and shall remove any and all WCF thereon.
5. A bond must be provided in an amount equal to the cost of removal of any and all WCF from the premises and for the repair of such premises and restoration to the condition that the premises were in at the onset of the lease. The amount is to be payable to the Town in the event that the user breaches the agreement in paragraph 4 herein.
6. For all Towers, the user will allow the Town of Warren and other carriers to lease space on the Tower so long as such use does not interfere with the user's use of the Tower, or with any Town controlled Communications Devices.
7. For a Tower, execution of an Agreement whereby the user will allow other carriers to lease space on the tower so long as such use does not interfere with the user's use of the tower. There will be a presumption that a tower can accommodate more than one user.

SECTION 8. EARTH REMOVAL

8.0 Definitions

The following words shall have the meanings herein given, unless a contrary intention clearly appears:

Earth: All forms of soil including, without limitation, sod, loam, sand, gravel, clay, peat, hardpan, rock, quarried stone or mineral products.

Removal: Stripping, digging, excavating or blasting earth from one lot and removing or carrying it away from said lot.

Lot: In addition to the definition of lot presented elsewhere in this Bylaw, for purposes of this chapter all contiguous land held in the same ownership shall constitute one lot even though such land was acquired by deed containing more than one parcel or by more than one deed and even though such land is shown on a plan or plans as divided into more than one parcel.

Owner: The owner of a lot with respect to which earth is sought to be removed or the person lawfully standing in the stead of such owner, as, for example, a lessee or tenant or person with written authorization for such removal from the owner.

Board: The Planning Board of the Town of Warren

Abutter: The owner of land abutting a lot including land on the opposite side of an abutting way.

Person: "Person" shall include corporations, societies, associations, and partnerships.

8.1 Scope

This Chapter shall apply to all earth removal operations in the Town of Warren except as otherwise provided in Section 8 below. It shall apply to all areas regardless of zoning district. Earth removal in the Groundwater Protection District is prohibited under Section 9 of this By-law.

8.2 Special Permit Required

Except as otherwise provided no earth shall be removed from any lot in the Town of Warren unless the Board grants a Special Permit to the owner of such lot. Procedures for issuing Special Permits are specified in Section 8.4. The Conservation Commission shall have the right to participate in the required public hearing including the right to question the petitioner. Within fourteen (14) days of the conclusion of the hearing, the Conservation Commission shall file with the Board a report containing its recommendations.

8.3 Information Required

Each application for a Special Permit shall be filed with the board with a copy sent to the Conservation Commission and shall be accompanied by the following information and support documentation:

8.3.1 The location of the lot on which it is proposed to carry out earth removal operations.

8.3.2 The legal name and address of the owner of the lot.

8.3.3 The legal name and address of the applicant.

8.3.4 Adequate evidence of the applicant's ownership or authority to seek the permit, as the case may be.

8.3.5 The names and addresses of all abutters as they appear upon the most recent tax list.

8.3.6 A plan of the portion of the lot on which it is proposed to carry out earth removal operations together with the surrounding land to a distance of at least one hundred (100) feet showing all man made features, property lines, vegetative cover, soil characteristics, drainage facilities and existing grades by five (5) foot contour intervals.

8.3.7 The form of the bond proposed to be submitted in accordance with Section 8.6 of this Chapter.

8.4 **Criteria for Evaluation**

The Board shall not grant the Special Permit if it appears that such removal will:

8.4.1 Endanger the public health or safety.

8.4.2 Constitute a nuisance.

8.4.3 Result in detriment to the normal use of adjacent property by reason of noise, dust or vibration; or

8.4.4 Result in operations within two hundred (200) feet of a way open to the public use, whether public or private, or within two hundred fifty (250) feet of a building or other structure unless the Board is reasonably satisfied that such operations will not undermine such way or building or other structure.

8.5 **Time Period**

No Special Permit shall be issued for a period in excess of five (5) years. The duration of the Special Permit including the beginning and terminating dates shall be set forth on the Special Permit.

8.6 **Approval and Conditions**

Applications for Special Permits may be granted, denied or granted in part and denied in part. Each Special Permit issued by the Board shall be subject to the following conditions which shall be set forth on the Special Permit.

8.6.1 No excavation below the natural grade of any lot boundary shall be permitted nearer than twenty (20) feet to such boundary unless the abutting land is subject to an Earth Removal Permit granted under this Chapter and the owner of such abutting land has granted written approval of such excavation.

8.6.2 No slope created by earth removal operations shall be finished at a grade in excess of two (2) (horizontal) to one (1) (vertical) unless specifically otherwise authorized in the permit.

8.6.3 Upon the conclusion of earth removal operations, all areas upon which such operations have been conducted shall be covered with not less than four (4) inches of topsoil capable of supporting vegetation, brought to the finished grades and seeded with suitable cover crops except where ledge rock is exposed and all large stones and boulders which protrude above finished grade shall be buried or removed. The Board may require the applicant to guarantee growth of the crop cover on such areas within two (2) years of seeding.

8.6.4 Days and hours of operation - Earth removal may take place as follows:

a. Monday through Friday, 7:00 a.m. to 5:00 p.m.

b. Saturday, 8:00 a.m. to 4:00 p.m.

c. Sunday and Holidays prohibited

8.6.5 Applications must detail activity expected for the permitted time frame. Bonds must be presented by the owner or operator and must be commensurate with the size of the operation (example: 5 -7 acres = \$5,000 - \$7,000 bond).

8.6.6 The following restrictions apply to the operating area:

a. Area not to exceed more than 5 - 7 acres open at any time,

b. Open working area not to exceed twenty-five (25%) percent of entire site.

c. Opening new area requires reclamation of old area,

- d. Reclamation consists of four (4) inches of loam and seeding.
- 8.6.7** No trespassing signs must be posted at eye level, at fifty (50') feet intervals around perimeter of gravel bank property lines. The entrance must be secure.
- 8.6.8** Vertical slopes are subject to the following restrictions.
 - a. Previously operated existing slopes not to exceed thirty (30') feet
 - b. All new operations not to exceed twenty-five (25') feet,
 - c. Operation greater than twenty-five (25') feet must be terraced.
- 8.6.9** The following elevation restrictions apply:
 - a. Not below high water table level,
 - b. Must be level with public road for two hundred (200') feet,
 - c. Water retention on active and reclaimed areas is not permitted.
- 8.6.10** The following process using equipment may be used:
 - a. loaders
 - b. trucks
 - c. screening

Crushers and similar equipment are allowed only if specifically referenced in the Special Permit. Abandoned or unused operating equipment may not be stored on the premises.
- 8.6.11** Loam, sand, gravel, and stone may be stored on the premises. Road grindings may be stored only if specified in the Special Permit. Hazardous wastes are not allowed to be stored on the premises.
- 8.6.12** The Town of Warren Building Inspector may inspect all permitted sites without notice.
- 8.6.13** Such other reasonable requirements consistent with the provisions of this Chapter and such rules and regulations as the Board may adopt hereunder including, but not limited to, grading, seeding and planting, fencing necessary for public safety, methods of removal, location and use of buildings and other structures, hours of operation, routes of transportation Of earth removal, control of drainage and disposition of waste incidental to the removal operations.
- 8.6.14** The applicant must post with the Treasurer of the Town of Warren a proper bond in such amount and with such sureties as determined by the Board to be sufficient to guarantee compliance with the terms and conditions of the permit.

8.7 Renewal

Upon application for a renewal of a Special Permit, the Board may in its discretion grant three (3) renewals for periods of up to three (3) additional years each without a public hearing, provided, however, that the Board has given notice of such application by advertisement in a newspaper of general circulation in the Town and by certified mail, postage pre-paid, to all abutters, as they appear upon the most recent tax list, and no written notice of objection by any abutter to such renewal has been filed with the Town Clerk within twenty-one (21) days of the giving of such notice.

8.8 Exemptions

The following earth removal operations are exempted from the provisions of this Chapter.

- 8.8.1** Earth removal operations for any municipal purpose by or on behalf of the Town of Warren or any department or agency thereof.

- 8.8.2** Earth removal operations which are customarily incidental to farming, agricultural, gardening or nursery operations.
- 8.8.3** The removal of not more than five hundred (500) cubic yards of earth from a lot for the purpose of constructing a building or other structure and associated facilities on such lot in accordance with a building permit.
- 8.8.4** The removal of not more than five hundred (500) cubic yards of earth from a lot for the purpose of constructing or improving a private way on such lot.
- 8.8.5** The removal of not more than a total of five hundred (500) cubic yards of earth from a lot for any purpose other than constructing a building or other structure and associated facilities on such lot in accordance with a building permit or constructing or improving a private way on such lot. All amounts of earth removed from a lot within any period of ten (10) consecutive years shall be added together in the computation of such total.

8.9 Waiver of Requirements

In the case of an application for a permit to remove more than five hundred (500) cubic yards of earth from a lot for the purpose of constructing a building or other structure and associated facilities on such lot in accordance with a building permit or constructing or improving a private way on such lot, the Board may in its discretion waive any or all of the requirements of Section 8.3.6, Section 8.6.3, and Section 8.6.5 of this Chapter.

8.10 General Provisions

- 8.10.1** The Board may adopt reasonable rules and regulations to carry out the purposes of this by-law. Such regulations shall take effect upon their being filed in the office of the Town Clerk.
- 8.10.2** Any person violating the provisions of this by-law shall be subject to the enforcement provisions of this By-law.

SECTION 9. GROUNDWATER PROTECTION

9.1 Purpose of District

The purpose of this Groundwater Protection District is to:

- a. promote the health, safety and general welfare of the community by ensuring an adequate quality and quantity of drinking water for the residents, institutions and businesses of the Town of Warren;
- b. preserve and protect existing and potential sources of drinking water supplies;
- c. conserve the natural resources of the Town; and
- d. prevent temporary and permanent contamination of the environment.

9.2 Scope of Authority

The Groundwater Protection District is an overlay district as delineated in Section 9.4 below, superimposed on the zoning districts. This overlay district shall apply to all new construction, reconstruction, or expansion of existing buildings and structures and new or expanded uses. Applicable activities/uses in a portion of one of the underlying zoning districts which fall within the Groundwater Protection District must additionally comply with the requirements of this district. Uses prohibited in the underlying zoning districts shall not be permitted in the Groundwater Protection District.

9.3 Definitions

For the purposes of this section, the following terms are defined below

Aquifer: Geologic formation composed of rock, sand, or gravel that contains significant amounts of potentially recoverable water.

Groundwater Protection District: The zoning district defined to overlay other zoning districts in the Town of Warren. The Groundwater Protection District location and boundary limits shall be as shown on a map entitled "Figure 1-Groundwater Protection District Warren, Massachusetts" prepared by Dufresne-Henry Consulting Engineers dated March 2005 which map is hereby made a part of the Town of Warren By-Laws on file at the office of the Town Clerk.

Impervious Surface: Material or structure on, above, or below the ground that does not allow precipitation or surface water to penetrate directly into the soil.

Mining: The removal or relocation of geologic materials such as topsoil, sand, gravel, metallic ores, or bedrock.

Potential Drinking Water Sources: Areas which could provide significant potable water in the future.

Recharge Areas: Areas that collect precipitation or surface water and carry it to aquifers. Recharge areas include areas designated as the Groundwater Protection District.

Toxic or Hazardous Material: Any substance or mixture of physical, chemical, or infectious characteristics posing a significant, actual, or potential hazard to water supplies or other hazards to human health if such substance or mixture were discharged to land or water in the Town of Warren. Toxic or hazardous materials include, without limitation: synthetic organic chemicals, petroleum products, heavy metals, radioactive or infectious wastes, acids and alkalis, and all substances defined as Toxic or Hazardous under M.G.L. Chapter 21C and 21 E and 310 CMR 30.00, and also include such products as solvents and thinners in quantities greater than normal household use.

9.4 Establishment and Delineation of Groundwater Protection District

For the purposes of this district, there are hereby established within the Town of Warren certain groundwater protection areas, consisting of aquifers or recharge areas which are delineated on a map. This map is entitled "Figure 1-Groundwater Protection District Warren, Massachusetts" prepared by Dufresne-Henry Consulting Engineers dated March 2005 and being attached hereto and incorporated herein. This map is hereby made a part of the Town of Warren Zoning By-Laws and is on file in the office of the Town Clerk.

9.5 District Boundary Disputes

If the location of the District boundary in relation to a particular parcel is in doubt, resolution of boundary disputes shall be through a Special Permit application to the Planning Board of the Town of Warren. Any application for a special permit under this section shall be filed in accordance with the provisions of Section 5 of the zoning By-law.

The burden of proof shall be upon the owner of the land to show where the bounds should be located. At the request of the owner, the Town of Warren may engage any professional or certified person including an engineer, hydrologist, geologist, soil scientist, soil evaluator, surveyor, attorney, or other qualified professional to determine more accurately the boundaries of the district with respect to an individual parcel of land and may charge the owner for the cost of the investigation.

9.6 Use Regulations

In the Groundwater Protection District, the following regulations shall apply:

A. Permitted Uses

The following uses are permitted within the Groundwater Protection District, provided that all necessary permits, orders, or approvals required by local, state, or federal law are also obtained:

1. conservation of soil, water, plants, and wildlife;
2. outdoor recreation, nature study, boating, fishing and hunting where otherwise legally permitted;
3. foot, bicycle and horse paths, and bridges;
4. normal operation and maintenance of existing water bodies and dams, splash boards, and other water control, supply and conservation devices;
5. maintenance, repair, and enlargement of any existing structure, subject to Section 9.6 B (Prohibited Uses) and Section 9.6 C (Special Permitted Uses);
6. residential development, subject to Section 9.6 B (Prohibited Uses) and Section 9.6 C (Special Permitted Uses);
7. farming, gardening, nursery, conservation, forestry, harvesting and grazing, subject to Section 9.6 B (Prohibited Uses) and Section C 9.6 (Special Permitted Uses);
8. construction, maintenance, repair, and enlargement of drinking water supply related facilities such as, but not limited to, wells, pipelines, aqueducts, and tunnels.

Underground storage tanks related to these activities are not categorically permitted.

B. Prohibited Uses

The following uses are prohibited:

1. landfills and open dumps as defined in 310 CMR 19.006;
2. automobile graveyards and junkyards as defined in M.G.L. c. 140B, §1;

3. landfills receiving only wastewater and septage residuals including those approved by the Department pursuant to M.G.L. c. 21, §26 through §53; M.G.L. c. 111, §17; M.G.L. c. 83, §6 and 7, and regulations promulgated thereunder;
4. facilities that generate, treat, store, or dispose of hazardous waste that are subject to M.G.L. c. 21 C and 310 CMR 30.00, except for the following:
 - a) very small quantity generators as defined under 310 CMR 30.000;
 - b) household Hazardous waste centers and events under 310 CMR 30.390;
 - c) waste oil retention facilities required by M. G. L. c 21, §52A;
 - d) water remediation treatment works approved by DEP for the treatment of contaminated ground or surface waters;
5. petroleum, fuel oils, and heating oil bulk stations and terminals including, but not limited to, those listed under Standard Industrial Classification (SIC) Codes 5171 and 5983. SIC Codes are established by the U.S. Office of Management and Budget and may be determined by referring to the publication, Standard Industrial Classification Manual, and other subsequent amendments;
6. storage of liquid hazardous materials, as defined in M. G. L. c. 21 E and liquid petroleum products, unless such storage is:
 - a. above ground level; and
 - b. on an impervious surface; and
 - c. either:
 - (i) in containers or above ground containers within a building; or
 - (ii) outdoors in covered containers or above ground tanks in an area that has a containment system designed to hold either 10% of the total possible storage capacity of all containers, or 110% of the largest container's storage capacity, whichever is greater.
7. storage of sludge and septage, unless such storage is in compliance with 310 CMR 32.30 and 310 CMR 32.31;
8. storage of deicing chemicals unless such storage, including loading areas, is within a structure designed to prevent the generation and escape of contaminated run-off or leachate;
9. storage of animal manure unless covered or contained in accordance with the specifications of the Natural Resources Conservation Service;
10. earth removal, consisting of the removal of soil, loam, sand, gravel, or any other earth material (including mining activities) to within 4 feet of historical high groundwater as determined from monitoring wells and historical water table fluctuation data compiled by the United States Geological Survey, except for excavations for building foundations, roads, or utility works;
11. discharge to the ground of non-sanitary wastewater including industrial and commercial process waste water, except:
 - a. the replacement or repair of an existing treatment works that will not result in a design capacity greater than the design capacity of the existing treatment works;
 - b. treatment works approved by the Department designed for the treatment of contaminated ground or surface water and operating in compliance with 314 CMR 5.05(3) or 5.05(13);
 - c. publicly owned treatment works.

12. stockpiling and disposal of snow and ice containing deicing chemicals if brought in from outside the district;
13. storage of commercial fertilizers, as defined in M.G.L. c. 128, §64, unless such storage is within a structure designated to prevent the generation and escape of contaminated runoff or leachate.

C. Uses and Activities Requiring a Special Permit

The following uses and activities are permitted only upon the issuance of a Special Permit by the Planning Board of the Town of Warren under such conditions as the Board may require:

1. enlargement or alteration of existing uses that do not conform to the Groundwater Protection District;
2. those activities that involve the handling of toxic or hazardous materials in quantities greater than those associated with normal household use, permitted in the underlying zoning (except as prohibited under Section B). Such activities shall require a special permit to prevent contamination of groundwater;
3. any use that will render impervious more than 15% or 2,500 square feet of any lot, whichever is greater. A system for groundwater recharge must be provided which does not degrade groundwater quality. For non-residential uses, recharge shall be by storm water infiltration basins or similar system covered with natural vegetation, and dry wells shall be used only where other methods are infeasible. For all non-residential uses, all such basins and wells shall be preceded by oil, grease, and sediment traps to facilitate removal of contamination. Any and all recharge areas shall be permanently maintained in full working order by the owner.

9.7 Procedures for Issuance of Special Permit

- A. The Special Permit Granting Authority (SPGA) under this by-law shall be the Planning Board of the Town of Warren. Such special permit shall be granted if the Board determines that the intent of this by-law, as well as its specific criteria, are met. The Board shall not grant a special permit under this section unless the petitioner's application materials include, in the Board's opinion, sufficiently detailed, definite, and credible information to support positive findings in relation to the standards of this Groundwater Protection By-law.
- B. Upon receipt of the special permit application, the Board shall transmit one copy to the Board of Health, the Conservation Commission, the Highway Department and the Building Inspector for their written recommendations. Failure to respond in writing within 35 days of receipt by the Board shall indicate approval or no desire to comment by said agency. The necessary number of copies of the application shall be furnished by the applicant.
- C. The Board may grant the required special permit only upon finding that the proposed use meets the following standards, those specified in Section 6 of this by-law, and any regulations or guidelines adopted by the Board. The proposed use must:
 1. in no way, during construction or thereafter, adversely affect the existing or potential quality or quantity of water that is available in the Groundwater Protection District;
 2. be designed to avoid substantial disturbance of the soils, topography, drainage, vegetation, and other water-related natural characteristics of the site to be developed.
- D. The Board may adopt regulations to govern design features of projects. Such regulations shall be consistent with subdivision regulations adopted by the Town of Warren.
- E. The applicant shall file six (6) copies of a site plan and attachments. The site plan shall be drawn at a proper scale as determined by the Planning Board and be stamped by a professional engineer. All additional submittals shall be prepared by qualified

professionals. The site plan and its attachments shall, at a minimum, include the following information where pertinent:

1. a complete list of chemicals, pesticides, herbicides, fertilizers, fuels, and other potentially hazardous materials to be used or stored on the premises in quantities greater than those associated with normal, household use;
 2. for those activities using or storing such hazardous materials, a Hazardous Materials Management Plan shall be prepared and filed with the Hazardous Materials Coordinator, Fire Chief, and Board of Health. The plan shall include:
 - a. provisions to protect against the discharge of hazardous materials or wastes to the environment due to spillage, accidental damage, corrosion, leakage, or vandalism, including spill containment and clean-up procedures;
 - b. provisions for indoor, secured storage of hazardous materials and wastes with impervious floor surfaces;
 - c. evidence of compliance with the Regulations of the Massachusetts Hazardous Waste Management Act 310 CMR 30, including obtaining an EPA identification number from the Massachusetts Department of Environmental Protection.
 - 3) proposed down-gradient locations for groundwater monitoring wells, should the Board of Selectmen or the Planning Board deem the activity a potential groundwater threat.
- F. Special Permits under this section shall be governed by the procedures set forth in Sections 5.11 through 5.14 of the Zoning By-law, except as provided for in section 9.5 regarding Boundary Disputes.
- G. Written notice of any violations of this By-Law shall be given by the Building Inspector to the responsible person as soon as possible after detection of a violation or a continuing violation. Notice to the assessed owner of the property shall be deemed notice to the responsible person. Such notice shall specify the requirements or restriction violated, the nature of the violation, and may also identify the actions necessary to remove or remedy the violations and preventive measures required for avoiding future violations and a schedule of compliance. Copies of such notice shall be submitted to the Board of Health, Conservation Commission, Highway Department, and Water Districts. The cost of containment, clean-up, or other action of compliance shall be borne by the owner and operator of the premises.
- H. For situations that require remedial action to prevent adverse impact to water resources within the Groundwater Protection District, the Town of Warren, the Building Inspector, the Board of Health, or any of their agents may order the owner or operator of the premises to remedy the violation. If said owner or operator does not comply with said order, the Town of Warren, the Building Inspector, the Board of Health, or any of their agents if authorized to enter upon such premises under the terms of the special permit or otherwise, may act to remedy the violation. The remediation cost shall be the responsibility of the owner and operator of the business.

9.8 Severability

A determination that any portion or provision of this overlay protection district is invalid shall not invalidate any other portion or provisions thereof, nor shall it invalidate any special permit previously issued thereunder.

SECTION 10. FLOOD PLAIN DISTRICT

10.1 Purpose

The purpose of the Flood Plain District is to protect the public health, safety, and general welfare, to protect human life and property from the hazards of periodic flooding, to preserve the natural flood control characteristics, and the flood storage capacity of the flood plain and to preserve and maintain the ground water table and water recharge areas within the flood plain.

10.2 District Delineation

The general boundaries of the Flood Plain District are shown on the Town of Warren Flood Insurance Rate Map (**FIRM**), dated December 1, 1981, as Zone A, A-30 to indicate the one (100) hundred year water surface elevations shown on the **FIRM** and further defined by the Flood Insurance Study, dated December 1, 1981. The floodway boundaries are delineated on the Town of Warren Flood Boundary Floodway Map (**FBFM**), dated December 1, 1981, and further defined by the Floodway Data Tables contained in the Flood Insurance Study. These two maps, as well as the accompanying Study, are incorporated herein by references and are on file with the Board of Selectmen, Town Clerk and Planning Board.

Within Zone A, where the one-hundred (100) year flood elevation is not provided on the **FIRM**, the developer/applicant shall obtain any existing flood elevation data and it shall be reviewed by the Inspector of Buildings. If the data is sufficiently detailed and accurate, it shall be relied upon to require compliance with this By-Law and the State Building Code, 780 CMR 120.G.

10.3 Use Regulations

10.3.1 All development, including structural and non-structural activities, whether permitted by right or by special permit must be in compliance with MGL Chapter 131, Section 40 and the Massachusetts State Building Code pertaining to construction in the flood plains (780 CMR 120.G).

10.3.2 In Zones A1-30 and AE, along watercourses that have a regulatory floodway designated on the FIRM or Flood Boundary & Floodway Map, encroachments are prohibited in the regulatory floodway which would result in any increase in flood levels within the community during the occurrence of the base flood discharge.

10.3.3 All subdivision plans must be designed to assure that:

- a. such plans minimize flood damage;
- b. all public utilities and facilities are located and constructed to minimize or eliminate flood damage; and
- c. adequate drainage is provided to reduce exposure to flood hazards.

10.4 Permitted Uses

The following uses of low flood damage potential and causing no obstructions to flood flows shall be allowed provided they are permitted by the Town of Warren Zoning By-Law and they do not require structures, fill or storage of materials or equipment.

1. Agricultural uses such as farming, grazing, truck farming, horticulture, etc.
2. Forestry and nursery uses.
3. Outdoor recreational uses, including fishing, boating, play areas, etc.
4. Conservation of water, plants, wildlife.
5. Wildlife Management areas, foot, bicycle, and/or horse paths.

6. Temporary non-residential structures used in conjunction with fishing, growing, harvesting, storage, or sale of crops raised on the premises.
7. Buildings lawfully existing prior to the adoption of these provisions; or
8. Reconstruction of buildings lawfully existing prior to the adoption of these provisions that have been destroyed by fire or other natural catastrophe, provided that reconstruction is started within 18 months of the date of the disaster, and that reconstruction complies with all laws, rules or regulations in existence at the time reconstruction begins.

10.5 Special Permits

No structure or building shall be erected, constructed, substantially improved or otherwise created or moved; no earth or other materials dumped, filled, excavated, or transferred, unless a Special Permit is granted by the Planning Board, acting as the Special Permit Granting Authority. The Planning Board may issue a Special Permit hereunder (subject to other applicable provisions of this By-Law) if the application is compliant with the following provisions:

1. The proposed use shall comply in all respects with applicable provisions of this By-Law and the Wetlands Protection Act, and
2. Within the twenty-one (21) days of the receipt of the application, the Planning Board shall transmit one copy of the development plan to the Conservation Commission, Board of Health, Inspector of Buildings, and the Zoning Board of Appeals. Final action shall not be taken until written comments have been received from the aforementioned boards or until thirty-five (35) days have elapsed. Special permits shall be issued by the Planning Board according to the provisions of Massachusetts General Laws, Chapter 40A, Section 9, and
3. All encroachments, including fill, new construction, substantial improvements to existing structures, and other development are prohibited unless certification by a registered professional engineer is provided by the applicant demonstrating that such encroachment shall not result in any increase in flood levels during the occurrence of the one hundred (100) year flood, and
4. The Planning Board may specify such additional requirements and conditions it finds necessary to protect the health, safety, and welfare of the public and the occupants of the proposed use.

10.6 Penalties

Penalties under the Zoning By-Law are applicable to violations of the Flood Plain District provisions.

10.7 Base Flood Elevation and Floodway Data

10.7.1 Floodway Data: In Zones A, A1-30, and AE, along watercourses that have not had a regulatory floodway designated, the best available Federal, State, local, or other floodway data shall be used to prohibit encroachments in floodways which would result in any increase in flood levels within the community during the occurrence of the base flood discharge.

10.7.2 Base Flood Elevation Data: Base flood elevation data is required for subdivision plans or other developments greater than fifty (50) lots or five (5) acres, whichever is the lesser, within unnumbered A zones.

10.8 Notification of Watercourse Alteration

In a riverine situation, the Planning Board shall notify the following of any alteration or relocation of a watercourse:

1. The Planning Board of all abutting communities
2. NFIP State Coordinator
Massachusetts Department of Conservation and Recreation
251 Causeway St., Suite 600-700
Boston, MA 02114-2104
3. NFIP Program Specialist
Federal Emergency Management Agency, Region I
99 High Street, 6th Floor
Boston, MA 02110

SECTION 11 OPEN SPACE RESIDENTIAL DEVELOPMENT (OSRD)

11.1 Purpose

The purposes of an OSRD are:

1. To advance the goals and policies of the *Warren Master Plan (2006)* and the *Warren Open Space and Recreation Plan (2010)*, as they may be amended from time to time.
2. To allow for greater flexibility and creativity in the design of residential developments.
3. To facilitate the permanent protection of open space, agricultural land, and natural, historic, and scenic resources.
4. To encourage a more economical and efficient form of development that is less sprawling, consumes less open land, respects a site's physical characteristics, and minimizes the total amount of disturbance on the site.

11.2 Procedures

11.2.1 Site Plan Approval: Applicants shall follow procedures for site plan approval in Section 5.33 of this Bylaw and in the Planning Board's Regulations for Site Plan Approval.

11.2.2 Application: Applicants shall file with the Planning Board two different development plans meeting the requirements for Preliminary Plans in the Planning Board's Subdivision Regulations: an Open Space Residential Development Plan and a Conventional Subdivision Plan. The Conventional Subdivision Plan shall show lots that comply with the dimensional requirements of the Zoning Bylaw. The OSRD Plan shall comply with the requirements described in this Bylaw. The submission shall also include a narrative describing each Plan, including the number and size of dwelling units, proposed project phasing, and open space characteristics.

11.2.3 Lot Calculation: The Conventional Subdivision Plan shall form the basis for determining the number of building lots the site can reasonably accommodate in conformance with all development requirements of the Zoning Bylaw. The total number of lots or dwelling units in an OSRD shall not exceed the number of lots or dwelling units the Planning Board determines are feasible for the site.

11.2.4 Design Process: Preparation of an OSRD Plan shall follow the design process outlined below. The Applicant shall submit maps and analysis for each step to demonstrate the process for determining the layout of proposed streets, house lots, and protected open space.

1. *Evaluate Site Context.* Evaluate the site in its larger context by identifying physical features, (e.g., stream corridors, wetlands, land forms), transportation systems, (e.g., road, trail, and bicycle networks), cultural assets, (e.g., recreational areas, historic sites, and archaeological resources), surrounding land uses, and protected open space.
2. *Map Natural and Cultural Resources.* Inventory and map existing site features, taking care to identify sensitive and noteworthy natural, scenic and cultural resources on the site, and to determine the connection of these features to each other. These resources include wetlands, existing or former farmland, riverfront areas, floodplains, steep slopes, mature woodlands, unique or endangered wildlife habitats, historic or cultural features (e.g. old buildings or stone walls), unusual geologic formations, and scenic views into and out of the property.
3. *Designate Open Space.* Identify areas for permanent preservation as open space. Such open space should include the most sensitive and noteworthy resources of the site, and, where appropriate, serve to extend existing neighborhood open space.

4. *Locate Development Areas.* Locate building sites, streets, parking areas, paths and other built features of the development. The design should minimize impacts on the neighborhood and include proposed amenities to create a unified community.
5. *Draw Lot Lines.* Draw lot lines to enable a comparison of the Conventional Subdivision Plan and OSRD Plan. The number of buildable lots approved by the Planning Board based on the Conventional Subdivision Plan shall be the maximum number of lots permitted in an OSRD.

11.2.5 Planning Board Decision: The Planning Board shall hold a public hearing and render a decision in accordance with Section 5.33 of this Bylaw. After reviewing the two proposed development plans, the Planning Board shall specify the maximum number of lots or dwelling units permitted in an OSRD.

11.3 Dimensional Requirements

11.3.1 Types of Dwellings. Single family dwellings are permitted in all districts, two-family dwellings are permitted in Residential and Village districts, and multi-family dwellings are permitted only in Village districts. Units in multi-family dwellings may comprise up to fifteen percent (15%) of all units in an OSRD. An OSRD is not permitted in Commercial districts.

11.3.2 Minimum Requirements: Lots that have access from internal roads within an OSRD shall conform to the following dimensional requirements. Lots that gain access from existing public ways shall comply with the dimensional requirements of Section 4 of the Zoning Bylaw.

Zoning District	Minimum Lot Size (sq. ft.)	Minimum Lot Frontage	Minimum Yard Depth			Max Height
			Front	Rear	Side	
Rural	20,000	100'	25'	25'	20'	35'
Residential	15,000	100'	20'	20'	15'	35'
Village						
1 or 2 family	10,000	65'	10'	15'	10'	35'
Multi-family	10,000 + 2,500 per unit	100'	20'	20'	15'	40'

11.4 Open Space Requirements

11.4.1 Open Space Minimum: In an OSRD, a minimum of thirty (30%) percent of the site in a Village district, and 40% in a Residential or Rural district, shall be permanently protected open space and shall be suitable for recreation, agriculture, or conservation uses. The Planning Board may require that at least fifty (50%) percent of the required open space be non-wetlands.

11.4.2 Location of Open Space: The location of open space shall be consistent with the policies contained in the Town's *Master Plan* and the *Open Space and Recreation Plan*. The following design requirements shall apply to open space provided in an OSRD:

1. Open space may be planned as large, contiguous areas whenever possible. Long thin strips or narrow areas of open space shall occur only when necessary for public access or maintenance, as vegetated buffers along wetlands or the perimeter of the site, or as connections between open space areas.

2. Open space shall protect valuable natural and cultural resources e.g. streams, wetlands, water bodies, unfragmented forests, significant trees, wildlife habitat, open fields, scenic views, trails, and archeological sites.
3. The maximum number of dwelling units compatible with good design shall abutt the open space and all residents within the OSRD shall have reasonable physical and visual access to the open space through internal roads, sidewalks, or paths. Such access may be limited where the Planning Board finds that resource areas are vulnerable to human disturbance.
4. Open space shall be accessible via a strip of land at least twenty (20) feet wide, suitable for a footpath and light maintenance vehicles, from one or more streets in the development. The Board may require an easement to allow access to the open space and to perform maintenance.
5. Where a proposed development abuts land held for conservation purposes, the protected open space shall abutt the conservation land to the extent feasible to create a large contiguous area of open space. Trails shall connect the parcels in appropriate locations.
6. Buildings, roads, and driveways should be located away from soils that are most suitable for agriculture (prime farmland soils and soils of state and local importance) to reserve the land for agricultural purposes.

11.4.3 Allowable Uses of Protected Open Space:

1. Purposes: Open space may be designated for recreation, conservation, agriculture, forestry, or educational purposes, and may have multiple uses, so long as the use is consistent with the purposes of the OSRD. The Planning Board shall have the authority to disapprove particular uses proposed for the open space.
2. Leaching Facilities: Subject to the approval of the Board of Health, the Planning Board may permit a portion of the open space to contain components of sewage disposal systems. Use of open space for such sewage disposal system may only be approved if the Planning Board finds that such use will not be detrimental to the character, quality, or use of the open space, wetlands, or water bodies.
3. Accessory Structures: The Planning Board may permit up to five percent (5%) of the open space to be paved or built upon for structures accessory to the proposed use of the open space (e.g. bicycle paths, playgrounds, farm buildings).
4. Open Space Management Plan: If the land is not conveyed to the Town, the owner shall submit a management plan for the long-term use and stewardship of the land. Such a plan shall include illustrative maps and a narrative discussion of:
 - a. The manner in which the open space and related facilities will be owned, managed and maintained;
 - b. The conservation, land management, and agricultural practices that will be used to conserve and protect the open space;
 - c. The professional and personnel resources that will be necessary to maintain and manage the property;
 - d. The nature of public or private access that is planned for the open space; and
 - e. The source of money that will be available for such management, preservation and maintenance on a perpetual basis.

11.4.4 Ownership of Open Space: At the developer's option and subject to approval by the Planning Board, all open space shall be either:

1. Conveyed to the Town and accepted by it for open space use.

2. Conveyed to a non-profit land trust or conservation organization, the principal purpose of which is the conservation of open space.
3. Conveyed to a corporation or trust, owned or to be owned by the owners of lots or residential units within the development (a "Homeowners Association"). Ownership in such a Homeowners Association shall pass with conveyance of the lots or residential units. The developer is responsible for the maintenance of the open space and other facilities held in common until the Homeowners Association is capable of assuming such responsibility. Thereafter, the members of the Homeowners Association shall share the cost of maintaining the open space. The applicant for the OSRD shall provide documentation, subject to the approval of the Planning Board, that the Homeowners Association has been established and that a provision to that effect has been included in the deed to any lot or unit in the development. Additionally, each deed to any lot or unit in the development shall include a restriction that maintenance of any open space owned by a Homeowners Association shall be permanently guaranteed by an arrangement providing for mandatory assessments for maintenance expenses to each ownership interest. No lot or unit in the development may be conveyed unless and until the Homeowners Association is established as provided herein.

11.4.5 Conservation or Agricultural Preservation Restriction: In any case where such open space is not conveyed to the Town or a qualified conservation organization organized pursuant to the Internal Revenue Code §170(h) for conservation purposes, then the open space shall be subject to a permanent conservation or agricultural preservation restriction in accordance with the provisions of MGL c. 184 §§ 31-33. The Restriction shall name the Conservation Commission or a qualified conservation organization as a co-holder. Restrictions shall provide for periodic inspection of the open space by the co-holder.

11.4.6 Relation to Subdivision Control Law: Nothing herein shall be construed as exempting an OSRD from compliance with the Subdivision Control Law, or the Planning Board's Subdivision Rules and Regulations. Further, any site plan approval issued for an OSRD shall include a condition requiring that the OSRD site plan approval be referenced on any definitive subdivision plan regarding the development, and that the definitive subdivision plan contain a notation to the effect that there shall be no further subdivision of the land which increases the number of building lots or units or results in an alteration of the open space areas except as may be approved through a modification of the OSRD site plan approval and a modification of the definitive subdivision plan.

SECTION 12 SOLAR ENERGY

12.1 Purpose

The purpose of this bylaw is to regulate the development of Large Solar Energy Facilities by providing standards for the placement, design, construction, operation, monitoring, modification, and removal of such energy facilities; to protect public safety; to protect and minimize impacts on property values; to protect and preserve farmland and open space; to minimize impacts on scenic, natural and historic resources of Warren; and to provide adequate financial assurance for the eventual decommissioning of such energy facilities.

12.1.1 Permit Granting Authority. Subject to the requirements of this bylaw, Large Solar Energy Facilities shall only be permitted in the Commercial (C) and Major Development Overlay Districts by Special Permit. The Planning Board shall be the Special Permit Granting Authority for Large Solar Energy Facilities. Failure to meet any of the following requirements will result in fines as per the Town of Warren's General Bylaws, Article 1, Section 4, Article XIV.

12.2 Applicability

This bylaw applies to all Large Solar Energy Facilities and to physical modifications that materially alter the type, configuration, or size of these facilities or related equipment. Exempt from this bylaw are Accessory Solar Energy Systems: Agricultural Solar Facilities and solar PV modules, ground mounted or installed on residential, industrial or commercial structures that provide energy primarily for on-site uses.

12.3 General Requirements

12.3.1 Site Plan Review: All Large Solar Energy Facilities shall undergo site plan review by the Planning Board prior to construction, installation, or modification as provided in this section.

1. Upon receipt of an application, the Planning Board may engage, at the applicant's expense, professional and technical consultants, including legal counsel, to assist the Board with its review of the application in accordance with the requirements of M.G.L. c. 44 sec. 53G. The Planning Board may direct the applicant to deposit funds with the Planning Board for such review at the time the application is accepted, and may require the applicant to add additional funds, as needed, upon notice. Upon approval of the application, any excess amount in the account attributable to the application, including any interest accrued, shall be returned to the applicant.

12.3.2 Required Documents: In addition to the submission requirements in the Planning Board's Site Plan Review Regulations, the applicant shall provide the following documents:

1. Surveyed Plans and engineered drawings of the Commercial Solar Energy Facility signed and stamped by a Registered Land Surveyor and by a Professional Engineer licensed to practice in Massachusetts, showing the proposed layout of the system;
 - a. Existing Conditions: showing property lines and physical features including, but not limited to: wetlands and related buffer zones, rivers and associated riverfront areas, land subject to flooding, vernal pools, FEMA flood plains, logging or access roads, forested areas, forest density, and existing vegetation;
 - b. Locations of public water supply and associated aquifer, as well as abutting properties' wells and septic systems;
 - c. Proposed surveyed layout of the system/facility and related structures, including final stormwater and other site management devices, fences, and the location of 20-foot wide access roads, including emergency vehicle turnarounds. Potential shading from nearby trees or structures should also be included;
 - d. Proposed changes to the landscape of the site including: grading, vegetation clearing, pollarding, as well as boundaries of proposed vegetative buffer;

- e. Landscape plan(s) pursuant to **12.3.8.7** detailing the proposed natural vegetative buffer and visual screen. Boundaries of existing vegetation shall be shown in lighter lines beneath;
 - f. Diagrams of sight lines from abutting residential and commercial structures and public ways, and visualizations of views of the site from which the facility would be visible;
 - g. Construction stormwater management and erosion control;
 - h. Post-installation stormwater management plan;
 - i. A deep hole tests report stamped by a Certified Soil Evaluator and witnessed by an agent from the Town per section **12.3.8.10.b**.
 - j. Construction Phases with detailed notes on plan.
2. An electrical diagram detailing the solar energy facility, associated components, and electrical interconnection methods, with all Massachusetts Electrical Code (527 C.M.R. section 12.00) compliant disconnects and overcurrent devices;
 3. Technical specifications and documentation of the major system components, including the solar arrays, mounting system, inverter, and battery array(s);
 4. A glare analysis and proposed mitigation, if any, to minimize the impact of glare on affected properties;
 5. The name, address, telephone number, and email address of:
 - a. All owners of land and businesses related to this project;
 - b. Applicant and all co-proponents;
 - c. Proposed installer, operator, and agents authorized to act on their behalf;
 - d. FERC licensee;
 - e. Active emergency contact who can be on-site within two hours during construction and after project completion/during operation.
 6. Proof of ownership or lease of the project site sufficient to allow for installation and use of the proposed facility;
 7. An operation and maintenance plan;
 8. Proof of liability insurance;
 9. Written confirmation from the Board of Assessors and the Collector of Taxes that all Real Estate, Rollback and Conveyance taxes, liens, betterments, and special assessments are satisfied in full, and that all associated land has been removed from Chapter 61;
 10. Orders of Resource Area Delineation or Notice of Intent obtained from Warren Conservation Commission;
 11. Financial surety that satisfies Subsection 12.5.4 of this Bylaw;
 12. Material Safety Data Sheets (SDS/MDS)
 - a. Prior to the issuance of a Building Permit the applicant shall provide to the Building Inspector and to the Special Permit Granting Authority Safety Data Sheet (SDS)/Materials Data Sheets (MDS) for all components of (internal and external), and products for, construction of the Solar Energy Facility.
 - b. The Building Inspector, Special Permit Granting Authority, Board of Health, and Planning Board may request such additional information as needed to evaluate the Special Permit application.

13. A comprehensive decommissioning/removal plan as per sections 12.5.1 and 12.5.2;
14. Baseline water sample testing performed on all abutting properties shall include private drinking water wells, "dug" wells, and all surface waters of ponds, streams, rivers, and wetlands. Analytical testing methods shall include all parameters as specified in Section 5.4 of the *Phase I Environmental Site Assessment with Subsurface Soil and Groundwater Sampling Guidelines* document (Guidelines Document) adopted by the Planning Board and available on the Town Website.

Based on reviews of MSDS sheets for system components as provided to the Town by the Applicant, the Town has the right to adjust its sampling requirements and analytical protocol for water samples collected for Baseline water testing.

12.3.3 Site Control

1. Lot Requirement: A Commercial Solar Energy Facility, including all access ways, shall lie within the borders of the Town and shall be sited on the same parcel as recorded at the Worcester District Registry of Deeds.
2. Access: Access to the Commercial Solar Energy Facility must be obtained from the facility's site lot's frontage.
3. Sharing of Property: The Commercial Solar Energy Facility shall not be sited on land that is already used for residential purposes.

12.3.4 Operation & Maintenance Plan: The applicant shall submit a plan for the operation and maintenance of the Commercial Solar Energy Facility, which shall include measures for maintaining safe access, storm water controls, vegetation controls - including the prompt replacement of any dead/diseased native screening evergreen trees in the natural buffer, and general procedures and schedules for operating and maintaining the energy facility. A battery end-of-life plan shall be included in the O&M - detailing procedures for the removal, disposal, and replacement of retired batteries, including language that requires proof of proper disposal of batteries be provided to the Board of Health, Building Department, and Fire Department at the time of battery retirement.

12.3.5 Insurance: At the time of application for a building permit, the applicant shall provide to the Building Inspector evidence of insurance coverage sufficient to build and operate the Solar Energy Facility. Minimum required coverage includes:

1. Five million dollars (\$5,000,000) in general liability coverage by occurrence, and ten million (\$10,000,000) in the aggregate; or an excess liability policy in the amount of ten million dollars (\$10,000,000).
2. The Town shall require catastrophe insurance for weather events including but not limited to tornado, hurricane, wind, flood or snow and ice damage, during the entire duration of said solar field, which insurance coverages shall be in such amounts and in such form as acceptable to the Special Permit Granting Authority, the minimum coverage for which shall be \$10,000,000.00. It shall be a Condition of every Special Permit that coverages will be reviewed annually and updated as necessary based on changes in costs.
3. The Town shall be named as an additional insured in all such policies of insurance.
4. It shall be a Condition of every Special Permit that the Special Permit holder shall provide Certificate(s) of Insurance before a Building Permit is issued and annually thereafter to evidence that the required insurance coverages are in place. The Special Permit holder shall notify the Town if a policy is going to be cancelled for any reason and shall provide a certificate evidencing replacement coverage is in place before the policy cancellation date.
5. Coverage shall be reviewed annually prior to the anniversary of the insurance policy and updated as necessary based upon inflation benchmarks and cost fluctuations. Confirmation of this update must be submitted to the Building Inspector.

12.3.6 Utility Notification: The applicant shall submit evidence satisfactory to the Planning Board that the utility company has been informed in writing of the applicant's intent to install a Commercial Solar Energy Facility, and that the utility company has responded in writing to the interconnection notice. Off-grid systems are exempt from this requirement.

12.3.7 Dimension and Density Requirements

1. Property Line Setbacks: Large Solar Energy Facilities shall have a setback from front, side, and rear property lines and public ways of at least one hundred fifty feet (150'). If a front, side, or rear lot line abuts one or more residences or lots not zoned for solar, the setback for that lot line shall be two hundred feet (200'). The Planning Board may require a greater setback along a property line, where, in its judgement, the proposed facility is likely to negatively affect an existing or permitted land use on the abutting property.
2. Other Setbacks: Large Solar Energy Facilities shall be sited at least one hundred fifty feet (150') from abutting properties' wells and septic systems.
3. Natural Buffer for Large Solar Energy Facilities: The site plan shall provide a natural vegetative buffer and visual screening as defined in 12.3.8.7, of one hundred fifty feet (150') between a Commercial Solar Energy Facility, the access road, all appurtenant structures and abutting properties; and two hundred feet (200') between a property in residential use and/or lots not zoned for solar.
4. Appurtenant Structures: All appurtenant structures, including but not limited to, equipment shelters, storage facilities, poles, transformers, and substations shall be subject to reasonable regulations concerning bulk and height, setbacks, parking, building coverage, and vegetative screening to avoid adverse impacts on the neighborhood or abutting properties.
5. The total number of Large Solar Energy Facilities concurrently within the Town shall be limited to **16**. Included within this number are large facilities that have received a permit to operate from the Planning Board as of the effective date of this Solar Energy by-law.

12.3.8 Design Standards

1. Lighting: Lighting shall be limited to that required for safety and operational purposes, and shall not be intrusive in any way on abutting properties. Lighting shall incorporate full cut-off fixtures to reduce light pollution.
2. Signage: The solar energy facility shall have one sign not exceeding thirty-two (32) square feet in area. Such sign shall identify the operator and provide a 24-hour emergency contact telephone number. Solar energy facilities shall not display any advertising except for reasonable identification of the manufacturer or operator of the facility. The site may have a secondary sign not exceeding sixteen (16) sq. ft. in area providing educational information about the facility and the benefits of renewable energy.
3. Utility Connections: The applicant shall place all wiring from the Commercial Solar Energy Facility underground, except in extraordinary circumstances where the Planning Board finds that soil conditions, shape, and topography of the site make such wiring unfeasible.
4. Commercial Energy Storage Systems
 - a. Energy Storage shall be prohibited from use on Commercial Solar Energy Facilities.
 - b. Stand-Alone Commercial Energy Storage Facilities are prohibited.
 - c. Commercial Solar Energy facilities that currently utilize energy storage (battery or other) are prohibited from adding to existing storage greater than the rated capacity of the facility.

- d. Existing Commercial Solar Energy Facilities that do not have permitted Energy Storage on site are prohibited from adding Energy Storage.
5. Access roads: All access roads shall be a minimum of twenty (20) feet wide with appropriate turn arounds based on the Fire Department's current apparatus dimensions. Of the roads installed on the site, one road shall circumnavigate the entire site and another road shall bisect the middle of the site. These two roads are mandatory.
6. Site Vegetation: The area under panels and within the fence (excluding roads and basins) shall be vegetated with meadow, appropriate to the soils of the site.
7. Natural Vegetative Buffer and Visual Screening: Where a Commercial Solar Energy Facility abuts one or more residences and/or public ways, or lots not zoned for solar, landscape plans - stamped by a registered landscape architect licensed to practice in Massachusetts - shall be provided for review and Planning Board approval. The plan's objective shall be to minimize, to the greatest extent possible, the visual impact of the facility on abutting residences and public ways during all seasons of the year.
 - a. The plan shall meet the objective through the use of: mature, native, soil-condition appropriate, and non-invasive plantings of trees and other vegetation, berms, land contouring, existing vegetation, and strategic placement of solar modules and appurtenant structures;
 - b. The plan must include in the natural buffer, a line of native screening from the spruce or fir family that sustain branches / needles closer to the ground throughout their life, and are at least twenty (20) feet tall at the time of planting. Any diseased or dead trees shall promptly be replaced;
 - c. The vegetative buffer must contain at least a fifty percent (50%) mix of native trees and a fifty percent (50%) mix of other native species appropriate to the site and soil conditions.
8. Glare: The solar PV modules shall be positioned in such a way that there is no possibility of glare on a residence or public way at any time during the day.
9. Town Aquifer: Facilities shall not be sited over the Town's aquifer/public water supply.
10. Stormwater:
 - a. All stormwater must recharge on the property. If the facility is designed with stormwater basins, their outflow must be located one hundred fifty (150) feet from abutting property boundaries, wells, and septic systems. Water exiting the basin must recharge on the Commercial Solar Energy Facility's property and shall not leave the property. Water must be shown to recharge on site and have no impact on abutting properties or the street. If the facility is designed with no basins, the applicant must provide evidence of onsite recharge. Stormwater runoff shall not impact the integrity of onsite access roads.
 - b. Deep hole tests shall be performed in all proposed stormwater feature locations, and within each subcatchment area - minimum two (2) per acre. Deep hole tests must be conducted in accordance with the Massachusetts Stormwater Handbook, and shall be witnessed by an agent of the Town.
11. Siting Large Solar Energy Facilities:
 - a. Wetland Resource Areas: The facility shall be located outside of all wetland resource areas and associated buffers as evidenced in an Order of Resource Area Delineation, which will determine that the boundaries of those resource areas on the plans have been delineated and approved by the Conservation Commission.
 - b. Slopes: The facility shall be sited on slopes no greater than **8%** grade.

12. Land Clearing, Soil Erosion, and Habitat Impacts: Clearing of natural vegetation shall be limited to what is necessary for the construction, operation, and maintenance of the Commercial Solar Energy Facility. The installation design shall minimize fragmentation of open space. No more than five (5) acres shall be open at once during construction as per Massachusetts Construction General Permit, and shall be 75% stabilized prior to opening more land. No earthwork shall take place from December 1 - April 15. The site shall be stabilized during that period.
13. Environmental Impacts:
 - a. Proposed Structures (including solar PV modules) shall be integrated into the existing terrain and surrounding landscape by minimizing impact to wetlands, steep slopes, and hilltops; protecting visual amenities and scenic views; minimizing tree, vegetation and soil removal; and minimizing grade changes.
 - b. Subject to M.G.L. c 132B, the Massachusetts Pesticide Control Act, and the regulations promulgated thereunder, the use of pesticides and herbicides within 200 feet of areas defined in 333 CMR 11.00 and 14.00, e.g. roadways, agricultural areas, sensitive areas, wetlands and vernal pools is prohibited.
14. Construction Impact: Prior to the issuance of the certificate of occupancy, the applicant shall repair any construction related damage to town ways under the direction of the Highway Surveyor.
15. PV Modules
 - a. No existing or proposed Solar Energy Facility shall use, or receive any update or modification for:
 - i. Solar tracking systems or panels that move with the sun;
 - ii. "Solar trees", i.e., Commercial Solar Energy Facilities using pole-mounted supports for solar panels creating a "tree" with multiple solar panels serving as "leaves".
 - b. Solar PV modules must be made from materials that can be recycled.

12.3.9 Emergency Services: The operator shall provide a copy of the project summary, operation and maintenance plan, electrical schematic, and site plan to the Warren Fire Chief and Police Chief. The applicant shall identify an official representative for public inquiries throughout the life of the installation.

1. The operator shall cooperate with local emergency services in developing an *emergency response plan* which will ensure that emergency personnel have immediate, 24-hour access to the facility;
2. Safety personnel may request at any time that the operator provide onsite training in accessing and shutting down the solar installation. All means of shutting down the solar energy facility shall be clearly marked;
3. The emergency response plan shall be reviewed annually with local emergency officials and revised as necessary;
4. The operator shall identify a qualified local contact person who can provide assistance to local officials during an emergency, with the ability to be on site within 2 hours;
5. The operator shall update the contact information immediately and so notify the Warren Fire Chief and Police Chief whenever there is a change in contact personnel or information;
6. Any onsite access road will be cleared and sanded within 24 hours after a snowfall of six (6) inches or more to make them accessible to emergency vehicles.

12.4 **Monitoring and Maintenance**

12.4.1 Maintenance: The applicant shall be responsible for the cost of maintaining the facility and any access road(s).

1. The operator shall maintain the facility in good condition. Maintenance shall include, but not be limited to, painting, structural repairs, integrity of security measures, and vegetation control – including the prompt replacement of screening trees per 12.3.8.7.b. The operator shall be responsible for maintaining access for maintenance equipment as well as emergency vehicles that is determined to be adequate by the Warren Fire Chief and Police Chief, through an annual inspection. Any onsite access roads will be cleared and sanded within twenty-four (24) hours after a snowfall of six (6) inches or more to make them accessible to emergency vehicles.
2. The applicant shall file an operation and maintenance report annually with the Planning Board no later than forty-five (45) days after the end of the calendar year, confirming that the operation is ongoing, has not been abandoned, and that the operation and maintenance plan is being followed. Failure to file the report within the required time frame may be considered evidence that the facility has been abandoned, and the Planning Board may take action as described in Sections 12.1.1 and/or 12.5.3 if a court finds that the facility has been abandoned.
3. The applicant shall notify the Building Department, Board of Health, and Fire Department prior to exchanging retired batteries for new. Proof of proper disposal shall be submitted to these three departments after batteries have been exchanged and disposal completed.
4. Within thirty (30) days of any change to the ownership of any part of the facility, to the property, or to the operator of the facility, the Town shall be provided with complete and updated contact information (name, telephone, email and mailing addresses) for:
 - a. All owners of land and businesses related to the facility;
 - b. Operator and agents authorized to act on their behalf;
 - c. FERC licensee;
 - d. Active emergency contact who can be onsite within two hours.Failure to update this information may be considered evidence that the facility has been abandoned, and the Planning Board may take action as described in Sections 12.1.1, and/or 12.5 if a court finds that the facility has been abandoned.
5. An annual inspection shall be performed by the Town or a certified third-party engineer selected by the Town. Any and all associated costs shall be paid by the facility owner. The annual inspection shall include a detailed interior and exterior inspection to include the suppression system of the Energy Storage System(s) if present.
6. Follow-up water testing as described in Section 12.3.2(14) shall be performed on all abutting properties on an annual basis and at termination of operations of the facility. The analytical testing methods shall be identical to the baseline tests as performed during the application process and as described in Section 5.4 of *Phase I Environmental Site Assessment with Subsurface Soil and Groundwater Sampling Guidelines* document (Guidelines Document) as available on the Town Website.
7. The applicant shall comply with any and all federal, Massachusetts and local installation and operational requirements.

12.4.2 Modifications: After issuance of the Building Permit, all material modification to the facility requires approval of the Planning Board unless exempt under this bylaw. A change to the specifications of any of the equipment installed at the site or a change that alters the type, configuration, or size of the facility shall be considered material modification. The operator may apply to the Planning Board for a determination as to whether a proposed modification is material. The Planning Board will forward all changes to appropriate boards for review and approval.

12.5 Discontinuance, Decommissioning, Abandonment and Removal

12.5.1 Removal Requirements: Any solar energy facility that has reached the end of its useful life or has been decommissioned, discontinued or abandoned, as defined below in Section 12.5.3, shall be removed. The owner or operator shall physically remove the facility within one hundred eighty (180) days after the date of discontinued or abandoned operations or decommissioning in compliance with the requirements of Section 12.5.1.1 and 12.5.2 1-5. The owner or operator shall notify the Planning Board by certified mail of the date of discontinued operations or decommissioning and submit the plans for removal.

1. Approval for Facility Removal/Dismantling: A narrative and plans shall be submitted to the Planning Board and the Conservation Commission for approval, including, but not limited to:
 - a. Existing Conditions: showing site plan layout including showing location of all equipment/conduit/buildings, etc., property lines and physical features including, but not limited to: wetlands and related buffer zones, access roads, forested areas, and existing vegetation;
 - b. Plans depicting Limit of Work and placement of erosion control prior to commencement of deconstruction as well as laydown/staging area location(s);
 - c. Post-deconstruction stabilization / re-vegetation of the site as necessary to return it to its original state (forest or meadow), and to minimize erosion during regrowth;
 - d. Plans depicting subsurface soil and groundwater sampling locations per section 12.5.2, subsection 4(a);
 - e. Phasing of project;
 - f. Documentation detailing materials removal, disposal method and cost, as well as proof of proper solar PV module and waste disposal;
 - g. Plans depicting phasing of the project, including details written in notes on the plan of the work to occur in each phase. Reference 12.5.2 for work to be included;
 - h. Emergency Response and Communications Plan as it pertains to the decommissioning phase of the project.
 - i. Solar PV modules must be recycled via an appropriate recycler and documented per paragraph 12.5.1.1.f.

12.5.2 Removal: Removal shall consist of:

1. Physical removal of **all** equipment from the site, including, but not limited to: solar PV modules and racks; stormwater structures and associated materials; all appurtenant equipment; security barriers; and electrical transmission lines above and below grade.
2. An Agent for the Town, paid for by the facility owner, shall be on site to oversee the removal and storage of the PV modules to ensure that none are broken while removing and handling the panels. All PV modules must be placed on 6 mil plastic until they are removed from the site. In the event that there is breakage of PV panels, a subsurface soil sampling assessment must be performed in the area of breakage. Sampling procedures and analytical methods to be used are described in the *Guidelines Document* as available on the Town Website.

3. At completion of facility operations but PRIOR to removal of any PV modules, racking, conduit, energy storage, foundations, earthwork, berms, basins, and general grading, a Subsurface Soil and Groundwater Assessment (SSA) must be performed.
 - a. The SSA shall be performed in accordance with the *Guidelines Document* as available on the Town Website.
 - b. Inspection of the Battery Storage System, if present, will be conducted prior to removal of said equipment from the site.
 - c. No equipment, including utility vehicles, can leave the gravel access roads to remove PV modules. Only after the SSA Final Report is submitted to the Planning Board, demonstrating that soils and groundwater at the facility site have not been adversely impacted during the operation of the solar facility can the Planning Board approve deconstruction and allow vehicles to access the site. Six (6) copies of the SSA Final Report must be submitted to the Town of Warren within 30 days of cessation of operations of the facility.
 - d. The Final SSA Report as detailed in Section 6.0 of the Guidelines available on the Town Website shall fully describe the objectives, methodology, field observations, analytical results and conclusions of all work completed under the SSA investigation. Attached exhibits shall include but not be limited to a Site Plan, Soil Sample and Groundwater Monitoring Well Location Plan, tabulated analytical results and comparison to applicable Department of Environmental Protection risk-based contaminant concentrations in soil and groundwater. The Licensed Site Professional shall render an opinion as to the presence of any contaminants present in soil and groundwater and recommend additional investigation at the facility site as appropriate.
4. Stabilization or re-vegetation of the site as necessary to return the site to its original state (forest or meadow), prior to clear cutting, and to minimize erosion.

12.5.3 Abandonment

1. It shall be a condition of the Special Permit that the applicant shall provide written notice delivered by certified mail to the Planning Board no less than **90** days prior to any of the following events:
 - a. Transfer of interest in the Commercial Solar Energy Facility or any part thereof, or assignment of any interest in the land where the Commercial Solar Energy Facility is located;
 - b. Dissolution of the applicant's entity in full or in part, or change of entity form;
 - c. Proposed decommissioning of the Commercial Solar Energy Facility.
2. Failure to provide such notice within the required time may be considered evidence that the facility has been abandoned, and the Planning Board may take action as described in Sections 12.5.3. 4-6 and 12.5.4 (Financial Surety).
3. Commercial Solar Energy Facility shall be considered abandoned:
 - a. 180 days after notices or submissions were due as per 12.4.1 2 (annual O&M report), 12.4.1 4 (updated owner/operator contact information) and 12.5.4 4 (decommissioning estimate), unless written notice of extenuating circumstances regarding the same is delivered and approved by the Planning Board within such time; or
 - b. If the Commercial Solar Energy Facility fails to operate for more than 180 days without written consent of the Building Inspector.

4. If the facility owner fails to remove the installation in accordance with the requirements of this section within one hundred eighty (180) days of decommissioning or abandonment, the Town or its agents may enter the property and physically remove all equipment and structures that comprise the Commercial Solar Energy Facility and restore the site to its original state.
5. It shall be a condition of the Special Permit that the facility owner and property owner shall agree to allow entry to remove an abandoned installation.
6. If the Town's cost for the removal exceeds the financial surety received, the facility owner will be responsible for the additional costs in accordance with 12.5.4 3 and 12.5.4. 4 and/or the property owner under the provisions of M.G.L c 40 §. 58.

12.5.4 Financial Surety

1. At the time of application, the applicant shall submit a decommissioning plan which shall include a comprehensive estimate of the costs associated with decommissioning, project dismantling and removal, and site restoration of the proposed Commercial Solar Energy Facility. This estimate shall be subject to peer review and approval by a professional construction estimating company retained by the Planning Board at the applicant's expense. The amount shall include an escalator for calculating increased removal costs due to inflation.
2. The decommissioning estimate shall be comprehensive and include the costs:
 - a. of all applicable permits and required inspections;
 - b. for construction bonds / liability insurance;
 - c. to build the temporary staging area(s);
 - d. to remove all electrical equipment, poles, buildings, and foundations - above and below ground;
 - e. to dismantle fencing and security gates;
 - f. to dismantle/disassemble solar PV modules, racks and supports;
 - g. to dismantle roads, parking area, inverter pad, battery storage and battery storage area;
 - h. to remove all stormwater-associated equipment and materials including sumps, pipes, rip rap, etc.;
 - i. to remove, fill, and grade all stormwater basins and swales;
 - j. for the legal and proper disposal of all equipment and waste, including solar PV modules, batteries and associated containers;
 - k. for restoring the property to its original conditions, including short-term stabilization during the growth of long-term plantings;
 - l. all professional costs including, but not limited to: engineering design for deconstruction, site restoration design, including removal of all easements, basins, environmental professional fees, legal fees, and all associated contractor costs for sampling, analytical testing, etc. in performance of:
 - i. Annual Baseline water testing and reporting conducted on abutting properties.
 - ii. Annual water testing, monitoring, and reporting conducted on groundwater monitoring wells installed on the facility property.

- iii. Performance of a Phase I Environmental Site Assessment and a Subsurface Soil and Groundwater Sampling Assessment (SSA) prior to commencement of construction per 12.5.2 Section 4 and Guidelines as available on the Town's Website.
- iv. Performance of an SSA every 5 years of operation of the facility and at cessation of operations and prior to removal of PV modules and other deconstruction activities per 12.5.2 Section 4.
- v. Consulting fees for conducting Peer Reviews on behalf of the Town for all environmental activities and reporting in association with the above requirements.
- m. current (not estimated) costs for recycling*;
- n. for trucking and hauling - PV modules, waste, etc.;
- o. for Project General Conditions;
- p. for anything not mentioned, but is expected to be incurred, including, but not limited to: engineering, labor, materials, permits, professional services, and waste disposal.

*No recycling or salvage value shall be calculated into the decommissioning cost.

3. It shall be a condition of the Special Permit that upon approval of the Special Permit, the applicant shall furnish security in the form of a cash deposit to secure the orderly decommissioning of the Commercial Solar Energy Facility, and prior to the issuance of a building permit, the sum of \$35.00 for each crystal silicon panel; the sum of \$62.00 per for each cadmium panel; and the sum of \$100.00 for each panel comprised of any other material not listed herein, or the full sum of estimated costs associated with decommissioning, dismantling, removal, and site restoration per whichever is greater. This sum shall be held by the Town Treasurer pursuant to M.G.L C. 44, sec 53G ½ to cover the cost of removal and site restoration in the event the Town must remove the installation and remediate the landscape.
4. Every five years a comprehensive estimate pursuant to 12.5.4.2 shall be updated and submitted to the Planning Board no later than 45 days after the calendar year. If the updated costs exceed the amount reserved in escrow, the balance will be deposited within 30 days. This new estimate shall be peer reviewed at the applicant's expense. Failure to submit the estimate within the required timeframe may be considered evidence that the facility has been abandoned, and the Planning Board may take action as described in Sections 12.1.1 and/or 12.5.3 if a court finds that the facility has been abandoned.
5. The security shall be disbursed to the facility owner in four stages, based on the satisfactory completion and approval of decommissioning work performed, according to the Decommissioning Disbursement Schedule adopted by the Planning Board, available on the Town Website. Five percent (5%) of the decommissioning principal, along with interest accrued if any, in the account, will be retained by the Town for 2 years after completion of decommissioning to ensure 75% stabilization is met after full growing season and shall be payable to the facility owner after approval has been granted by the Town's agent or representative.
6. The Town of Warren shall be authorized to expend funds from the Decommissioning account for removal of an abandoned solar energy facility, and shall comply with reporting requirements imposed by the Planning Board.

12.5.5 Severability. If any provision of this bylaw is held invalid by a court of competent jurisdiction, the remainder of this bylaw shall not be affected thereby.

12.6 Definitions

Accessory Solar Energy Systems - Are defined as those that provide energy primarily for on-site uses and sized to generate no more than 125% of the annual projected electric use.

Agricultural Solar Energy Facility - A solar photovoltaic system for the exclusive purpose of providing electricity for a property that is primarily in agricultural use, and sized to generate no more than 125% of the annual projected electric use.

Rated Nameplate Capacity - The maximum rated output of electric power production equipment. The manufacturer typically specifies this output with a "nameplate" on the equipment.

Commercial Energy Storage Systems - Technology that allows energy produced at one time to be stored and sold commercially at a later time. This technology includes, but is not limited to, batteries.

Commercial Solar Energy Facility - A commercial solar facility with the primary purpose of electrical generation for sale or resale off-site. It includes any and all service and access roads, equipment, machinery, and structures utilized in connection with the conversion of solar energy into electrical power.

SECTION 13 MILL CONVERSION OVERLAY DISTRICT

13.1 Purpose

The purposes of this Mill Conversion Overlay District (MCOD) are:

1. To encourage the preservation, reuse and renovation of historic mill properties;
2. To allow for the conversion of Warren's historic mills in a way that preserves the character of nearby residential and commercial neighborhoods;
3. To enhance business vitality and provide employment opportunities; and
4. To encourage sustainable mixed-use development that meets a variety of community needs.

13.2 Establishment of Overlay District

The MCOD is established as an overlay district. The boundaries of the MCOD are shown on the Mill Conversion Overlay District Map on file with the Town Clerk. Within the MCOD, all regulations of the underlying district(s) remain in effect, except where these regulations provide an alternative to such requirements. Land within the MCOD may be used either for (1) a Mill Conversion Project (MCP), in which case the regulations set forth in this section shall apply; or (2) a use allowed in the underlying district, in which case the requirements of the underlying district shall apply. If the provisions of the MCOD are silent on a zoning regulation, the requirements of the underlying district shall apply.

13.3 Special Permit and Site Plan Approval Required

The Planning Board may issue a special permit and approve a site plan pursuant to Section 5.3 for the redevelopment or conversion of an existing mill. Each residential MCP shall attain seventy-five percent (75%) occupancy, as determined by the Building Inspector, before an applicant may submit another residential MCP special permit/site plan approval application. The following uses are allowed as part of a Mill Conversion Project.

1. Multi-family residential, assisted living facilities, nursing homes, senior residential facilities, bed and breakfast establishments
2. Commercial uses, including but not limited to retail sales, banks, convenience stores, financial services, theaters, health/fitness clubs, indoor recreation, indoor flea markets, and dental and medical services
3. Restaurants, fast food restaurants, taverns, bakeries, delicatessens
4. Personal service establishments, such as but not limited to barber shops, beauty shops, tanning salons, nail salons, shoe repair shops, massage therapy, dry cleaners, and tailors
5. Hotels, inns, and conference facilities
6. Business and professional offices
7. Light industry, processing, assembly, wholesale trade, warehousing, research and development
8. Artist studio/residence, photographer, potter, sculptor, dance studio, music school, art gallery, live performance stages, and similar artistic and cultural endeavors
9. Museums, educational uses, charitable or philanthropic organizations, municipal uses, child care facilities, and similar institutions
10. Drive-thru windows for fast food restaurants, donut shops, banks, etc.
11. Hydroelectric generating units

13.4 Dimensional Regulations

13.41 Existing Structures: Structural alterations and repairs may be made to existing mill buildings or accessory structures even though at the time of the application for the building permit the lot, building, or structure does not conform to one or more of the dimensional requirements of the underlying district. The special permit may authorize alteration, extension or expansion of the structure to conform to the Building Code for health and safety purposes or to overcome unusual design constraints caused by the historic development pattern of the premises. Such expansion shall be consistent with the character and scale of existing building(s).

13.42 New Construction: The dimensional requirements of the Village district shall apply to all new structures or buildings. The type and architectural style of such new buildings and structures shall be subject to Planning Board approval, shall be in keeping with the historical context of the mill, and shall not have a detrimental effect on the neighborhood.

13.43 Multi-Family Development:

1. Residential density shall not exceed one dwelling unit per 15,000 square feet of lot area. The limit of twelve units per building in section 3.22.3 shall not apply to buildings in existence before January 1, 2012.
2. Not more than twenty percent (20%) of the dwelling units in an MCP shall consist of three (3) or more bedrooms.
3. Not more than 50% of the gross floor area³ of buildings on the premises at the date of adoption of this bylaw shall be used for residential purposes.
4. The minimum gross floor area of a dwelling unit shall be eight hundred (800) square feet.
5. In order to maintain a balance between residential and non-residential uses in the MCOB, the floor area renovated for residential use may at no time exceed the floor area occupied by non-residential uses by more than 50,000 sq. ft., except due to vacancies caused by non-residential tenants leaving the premises.

13.5 Submission Requirements

Each application shall contain the information specified in the Planning Board's Regulations for Site Plan Approval. In addition, the applicant shall submit the following information:

1. An overall plan of development showing existing and proposed buildings and the intended uses for each building, if known. The plan shall show special natural and cultural features, including wetlands and significant wildlife habitats, rivers and ponds, dams and mill structures, existing and proposed trails and paths, open vistas, structures to be preserved or demolished, and proposed conservation and recreation areas.
2. Architectural drawings and typical elevations illustrating the design, location and layout of buildings. Perspective renderings shall show the finished appearance of the MCP and its visual impact on adjacent properties.
3. For residential uses, a plan to scale for each floor of each building that shows the location and number of residential units, the number of bedrooms, floor area of each unit, and location of affordable dwelling units, if applicable. For non-residential uses, the applicant shall provide a floor plan to scale that shows the location, floor area, and proposed use of each floor.
4. A plan depicting the care, custody and control of all dams and water rights and location of hydroelectric facilities, if applicable

³ As defined in the State Building Code, 780 CMR 1002.1.

5. Copies of all proposed covenants, easements, and other restrictions that the Applicant proposes to grant to the Town, and information on the organization that will own and maintain the MCP.
6. A narrative that includes the following information:
 1. A project summary containing an overview of the project, impact on environmental and historic resources, a description of the mix of proposed uses, and the manner in which uses complement each other, prevent conflict with the adjacent neighborhood, and achieve the purposes of the MCOD;
 2. The number and type of residential units, floor area of non-residential uses, and form of ownership;
 3. Number of parking spaces and allocation to proposed uses;
 4. A proposed development schedule that describes the phases of development, the order of construction and renovation of buildings, and the estimated dates of completion;
 5. A report prepared by a preservation consultant that includes the architectural history of all structures on the site, including period, style, method of building construction, and association with any particular architect or builder;
 6. Manner of water supply, estimate of water use, ability of the water district to serve the proposed use, and impact on the water distribution system;
 7. Estimate of sewage generation from the MCP and the effect of the project on the sewer system;

13.6 Development Standards

1. **Open Space:** At least 25% of the undeveloped land on the property existing at the time of the first application shall be protected from development and open to the public. The protected open space may be phased in as the mill buildings are re-developed. Possible uses include, but are not limited to, riverfront trails, access to historic or archaeological resources, and protection of endangered species. The open space shall be subject to a permanent conservation or agricultural preservation restriction in accordance with the provisions of MGL c. 184 §§ 31-33.
2. **Parking:** The MCP shall provide adequate parking to serve all anticipated uses on the property.
3. **Parking Lot Landscaping:** Parking lots shall contain interior landscaping covering not less than five percent (5%) of the total area of the lot. Parking lots shall also have landscaping around the perimeter of the lot for a width of ten feet (10') planted with trees and shrubs.
4. **Utilities:** All new or relocated utility and communication lines shall be underground, except upon a demonstration of exceptional circumstances. Light fixtures shall be compatible with the architectural theme of the mill.
5. **Buffers:** Landscaped buffers shall shield adjacent properties from objectionable views and minimize negative impacts such as glare, noise, and odors.
6. **Outside Storage:** Outside storage areas for materials, equipment or trash shall have an opaque screen to shield such areas from view. Such screens may be walls, fences, landscaped berms, evergreen plantings, or any combination thereof. Building materials shall be compatible with the architectural theme of the mill.
7. **Paths:** The Planning Board may require paths to access the amenities and facilities on the site and to connect to paths or sidewalks on adjacent properties. Such paths shall have an attractive design and show proper regard for pedestrian convenience and separation from vehicular traffic.

13.7 Approval Criteria

The Planning Board may grant a special permit for an MCP if it determines that the proposed project complies with the special permit criteria of Section 5.1 and site plan approval standards of Section 5.35 of this Bylaw. The Planning Board shall consider the following criteria when making its determination:

1. **Vehicle and Pedestrian Movements:** The MCP contains provisions for convenient and safe vehicular and pedestrian movement within the site, for traffic improvements to mitigate negative impacts on the adjacent street network, and for adequate emergency vehicle access.
2. **Parking:** Sufficient off-street parking is available to accommodate the needs of the MCP, including visitors and patrons of the commercial uses, without detriment to the surrounding neighborhood.
3. **Town Services:** Demands placed on municipal and school services do not exceed the capacity of the Town or School District to provide such services.
4. **Landscaping:** Landscaping minimizes the visual impact of off-street parking areas, dumpsters, and other unsightly uses on adjacent properties and enhances the overall appearance of the MCP.
5. **Amenities:** The proposed development benefits the neighborhood through design features such as vegetative buffers, retention of views, and the provision of open space accessible to the public.
6. **Town Character:** The MCP preserves mill features, achieves architectural compatibility with the neighborhood, employs native landscaping, and is in character and scale with the surrounding neighborhood and the natural landscape.
7. **Water Supply:** There is a safe and adequate water supply to meet the needs of the MCP, including sufficient supply and pressure for firefighting on the site.
8. **Sewage Treatment:** There is adequate capacity in the Warren sewage treatment plant to accommodate the anticipated flow.
9. **Environment:** The MCP has no negative impacts upon the environment considering such features as air and water quality, wetlands, rare and endangered species, noise, stormwater, open space, energy use, etc.

13.8 Waivers

The Planning Board may waive or modify the standards of this Bylaw where existing conditions do not allow for full compliance. The Board may specify alternative measures to protect the Town or neighborhood and achieve the purposes listed in §13.1.

13.9 Definitions

“Mill Conversion Project” (MCP) shall mean the conversion of an existing mill, or portion thereof, to uses permitted in the Mill Conversion Overlay District.

SECTION 14 MAJOR DEVELOPMENT OVERLAY DISTRICT

14.1 Purpose

The purpose of this Major Development Overlay District (MDOD) is to foster sustainable economic growth, provide employment opportunities for residents, increase the local tax base, preserve the natural environment and working landscapes that are part of the Town's heritage, and provide for mitigation of any negative impacts caused by new development. A Major Development offers design and dimensional flexibility and may have a mix of uses that are developed as a single entity in a planned and integrated fashion consistent with Warren's small town character.

14.2 Establishment of Overlay District

The MDOD is established as an overlay district. The boundaries of the MDOD are shown on the Major Development Overlay District Map on file with the Town Clerk. Within the MDOD, all regulations of the underlying district(s) remain in effect, except where these regulations provide an alternative to such requirements. All uses permitted by right in the underlying Rural Zoning District under the Zoning Bylaw, Section 3.2, Schedule of Use Regulations, are permitted by right in the Major Development Overlay District. Land within the MDOD may be used either for (1) a Major Development, in which case the regulations set forth in this section shall apply; or (2) a use allowed in the underlying district, in which case the requirements of the underlying district shall apply. If the provisions of the MDOD are silent on a zoning regulation, the requirements of the underlying district shall apply.

14.3 Special Permit Uses

A Major Development requires the grant of a Special Permit and Site Plan Approval from the Planning Board. The Board shall determine that the Major Development provides benefits that outweigh any adverse effects upon the Town or neighborhood, after consideration of the criteria specified in Section 14.7. A Major Development may include the following uses:

1. Business or professional offices
2. Basic and applied research and development in the information technology, pharmaceutical, biological, biotechnology, biomedical, and engineering fields, with incidental production and product assembly, laboratory testing, and related uses
3. Light manufacturing, processing and assembling, warehouses
4. Retail stores and commercial services, including shopping centers, malls, warehouse-type outlets, banks, restaurants and fast food restaurants
5. Hotels, inns, conference centers and function facilities
6. Commercial indoor and outdoor recreation facilities
7. Automotive service stations
8. Renewable/Alternative Energy Research and Development Facilities
9. Heliports or helipads as an accessory use to a permitted use
10. For-profit educational institutions
11. Museums and Non-Profit Institutions, subject to a Payment In Lieu of Taxes (PILOT) Agreement
12. Nursing homes, rehabilitation facilities, assisted living facilities, and hospitals
13. Rail freight terminals

14.4 Dimensional Standards

A Major Development consisting of a single use, or a mix of uses developed as a single entity, shall conform to the following dimensional standards:

1. Minimum Tract Size: 25 acres
2. Minimum Tract Frontage: 200' on a public way
3. Setbacks: No building, parking lots, or storage areas shall lie within fifty feet (50') of any public street or within one hundred feet (100') of any other property line.
4. Maximum Building Height: four stories, but not to exceed fifty feet (50'). This limit shall not apply to smoke stacks, spires, water tanks, and similar structures not devoted to human occupancy.

14.5 Procedures

Applicants shall comply with the procedures for issuance of special permits specified in section 5.1 and with the Planning Board's Regulations for Site Plan Approval.

14.6 Design Standards

- 14.6.1 Outdoor Storage: The Planning Board shall require exposed storage areas, dumpsters, machinery, service areas, utility buildings and/or other unsightly uses to be screened from view from neighboring properties and streets.
- 14.6.2 Utility Services: All on-site utilities shall be underground, unless the Planning Board grants permission for aboveground services.
- 14.6.3 Lighting: Applicants shall submit a lighting plan from a qualified engineer that meets the functional security needs of the proposed development and does not adversely affect adjacent properties. Security cameras shall be positioned to prevent viewing of adjacent properties. All lighting shall be arranged and shielded to prevent glare from falling onto any public or private way. Each outdoor luminaire shall have a cutoff to prevent light trespass into the night sky. The Planning Board may allow outdoor recreational uses that require nighttime visibility provided the lighting does not constitute a hazard to motorists or a nuisance to adjacent properties.
- 14.6.4 Landscaping
 1. A landscape plan drawn to scale, including dimensions and distances, shall be prepared by a registered landscape architect. The plan shall delineate all existing and proposed parking spaces or other vehicle areas, access aisles, driveways, and the location, size and description of all landscaping materials and tree cover.
 2. A minimum of five (5) per cent of the interior area of parking lots having twenty-five (25) or more spaces shall contain landscaping to provide visual breaks of large extents of pavement. Landscaping shall also be provided around the perimeter of such lots for a width of ten feet (10') and planted with trees and shrubs, the size and type of which shall be subject to Planning Board approval.
 3. The property owner shall continually maintain all landscaped areas and replace dead or diseased trees and shrubs within one growing season.
- 14.6.5 Stormwater Management: Stormwater management systems shall incorporate "Best Management Practices" (BMP) as prescribed by the Massachusetts Department of Environmental Protection and employ Low Impact Development (LID) strategies. The BMP/LID design should decentralize stormwater management measures in order to mitigate post-development downstream impacts and achieve the highest level of water quality for all stormwater runoff. The stormwater design should include elements such as landscaped swales, vegetated rain-gardens, infiltration trenches, dry wells, permeable pavements and other runoff control features that serve to achieve BMP/LID goals.
- 14.6.6 Noise: No development, or commercial or industrial establishment, shall result in noise that causes a nuisance or could injure public health or unreasonably interfere with the comfortable enjoyment of life, property, or the conduct of business. A noise source will violate this standard if the source:
 1. Increases the broadband sound level by more than 10 dB(A) above ambient, or
 2. Produces a "pure tone" condition – when any octave band center frequency sound pressure level exceeds the two adjacent center frequency sound pressure levels by 3 decibels or more.

These criteria shall be measured at the property line. "Ambient" means the background A-weighted sound level that is exceeded 90% of the time, measured during equipment operating hours.

- 14.6.7 Hazardous Materials: If a Major Development includes the storage or use of Toxic or Hazardous Materials, as defined in Section 9.3, the applicant shall comply with the provisions of Section 9.7 E. The owner or operator of the Major Development shall arrange for an annual inspection by the Fire Chief and shall promptly comply with the Chief's requirements.
- 14.6.8 Signs: Signs advertising uses or activities taking place within a Major Development that exceed fifty (50) square feet require a special permit from the Planning Board. Billboards (signs that advertise uses or activities that take place off the property) are prohibited in the MDOD.
- 14.6.9 Wildlife Plan: The application shall include a wildlife habitat plan and map prepared by a wildlife specialist that serves as a guide to protect wildlife and significant habitat on the parcel. The wildlife map shall display land included in the most recent Biomap, vernal pool, and Natural Heritage and Endangered Species Program (NHESP) data layers, significant habitats, and corridors used by wildlife to move within or through the parcel. The plan shall address protection and management of important wildlife habitat and depict the location of areas to remain undisturbed. The Planning Board may require the applicant to reserve important nesting areas, or designate a wildlife corridor, to limit critical habitat disturbance and allow movement to adjacent properties.

14.7 Decision Criteria

In addition to the special permit criteria in Section 5.1, the Planning Board may grant a Special Permit for a Major Development if it finds that the Development will:

1. Include mitigation measures to minimize impacts to abutting land and natural resources from air or water pollution, noise, dust, vibration, lighting, or stormwater runoff.
2. Provide safe and convenient access to the site from existing or proposed roads, and to proposed structures thereon, with particular reference to pedestrian and vehicular safety, traffic flow and control, and access in case of fire or emergency. The applicant shall submit a transportation study from a qualified traffic engineer that documents existing conditions and projects the change in Level of Service (LOS) caused by the development. The Board may require off-site traffic mitigation measures to assure safety and adequate capacity at points of ingress and egress and at nearby intersections.
3. Provide for adequate capacity for public services, facilities, and utilities to service the proposed development such as water supply and pressure for fire protection, ambulance, septic/sewer capacity, and storm water runoff. The applicant shall demonstrate adequate fire protection for structures that exceed the height of Warren Fire Department capabilities.
4. Provide for visual and noise buffering of the development to minimize impacts to abutting properties.
5. Have a mass, scale, and design that is consistent with Warren's small-town character.
6. Protect the public health, safety, welfare, comfort, and convenience of the Town.
7. Preserve natural and cultural features on the site and minimize alteration of the natural environment. These include wetlands, vernal pools, streams, ground water, water bodies, wildlife corridors, rare species habitats, scenic views, and archaeological and historic features.
8. Provide a positive fiscal impact on the Town, i.e. one that generates more local revenue than the total cost to the Town of providing municipal services to the development, as determined by an independent economic and fiscal impact analysis.
9. To the extent allowed by federal and state law, incorporate the best efforts of the proposed uses to provide jobs for Warren residents.

14.8 Modification

The Board may modify or waive any requirement of this Section upon finding that due to topography, location, or unusual conditions affecting the property, the requirements would unreasonably restrict development of the property. In modifying or waiving these provisions, the Board may impose conditions it deems necessary to protect the public interest and promote the orderly development of Warren.

SECTION 15 MARIJUANA ESTABLISHMENTS AND MEDICAL MARIJUANA TREATMENT CENTERS

15.1 Purpose

It is the intent of this Bylaw to protect public health and safety by regulating the siting, design, placement, security, monitoring and safety of Marijuana Establishments and Medical Marijuana Treatment Centers; to minimize adverse impacts on abutting properties; to provide adequate separation from schools, parks, and other areas where children may assemble in accordance with the applicable state laws and regulations, specifically Chapter 369 of the Acts of 2012 (An Act for the Humanitarian Medical Use of Marijuana), M.G.L. c.94I (Medical Use of Marijuana), 725 CMR 105.00 (Implementation of an Act for the Humanitarian Medical Use of Marijuana), M.G.L. Chapter 94G (Regulation of the Use and Distribution of Marijuana Not Medically Prescribed) and 935 CMR 500.00 (Adult-Use of Marijuana).

15.1.1 Definitions.

Any term not specifically defined herein shall have the meaning as defined in 105 CMR 725.00 (for medical use marijuana) and 935 CMR 500.00 (for adult use marijuana) as such regulations may from time to time be amended.

Marijuana Establishment - A Marijuana Cultivator, Craft Marijuana Cooperative, Marijuana Product Manufacturer, Marijuana Retailer, Independent Testing Laboratory, Marijuana Research Facility, Marijuana Transporter, or any other type of licensed marijuana-related business, except a medical marijuana treatment center.

Marijuana Cultivator - An entity licensed to cultivate, process and package marijuana, and to transfer marijuana to other Marijuana Establishments, but not to consumers. A Craft Marijuana Cooperative is a type of Marijuana Cultivator. Cultivators are prohibited from engaging in outdoor cultivation.

Marijuana Retailer - An entity licensed to purchase and transport cannabis or marijuana product from Marijuana Establishments and to sell or otherwise transfer this product to Marijuana Establishments and to consumers. Retailers are prohibited from delivering cannabis or marijuana products to consumers; and from offering cannabis or marijuana products for the purposes of on-site social consumption on the premises of a Marijuana Establishment.

Medical Marijuana Treatment Center Dispensary/Retail (MMTC-DR) - An entity registered under 105 CMR 725.100 that acquires, possesses, transfers, transports, sells distributes, dispenses, and/or administers marijuana, products containing marijuana for medical use, related supplies, and/or educational materials to registered qualifying patients or their personal caregivers.

Medical Marijuana Treatment Center Cultivation/Processing (MMTC-CP) – An entity registered under 105 CMR 725.100 that acquires, cultivates, possesses, processes, transfers and/or transports marijuana and/or products containing marijuana for medical use to registered qualifying patients or their personal caregivers. Cultivators are prohibited from engaging in outdoor cultivation.

15.2 Cultivation in the Rural District:

Only marijuana cultivators and MMTC-CPs shall be allowed in the Rural District by grant of a Special Permit and Site Plan Approval from the Planning Board and shall comply with the following requirements:

1. Cultivation may occur only in greenhouses.
2. Cultivation shall be set back from property lines a minimum distance of two hundred feet (200').
3. The Planning Board may require landscaping, a solid fence, or other measures to achieve adequate screening.
4. Cultivation shall comply with the security and alarm requirements of the Department of Public Health (DPH) or Cannabis Control Commission (CCC), as the case may be, and other stipulations that the Planning Board may require.

5. Lighting shall be the minimum necessary for security purposes, as determined by the Planning Board. Each outdoor luminaire shall have a cutoff to prevent light trespass into the night sky.

15.3 Special Permit and Site Plan Approval Required

A special permit and site plan approval shall be required for all types of Marijuana Establishments, and for MMTC-DRs and MMTC-CPs (collectively, "Medical Marijuana Treatment Centers" (MMTCs)). The Planning Board shall be the special permit granting authority and shall also conduct site plan approval for an application for a Marijuana Establishment and/or MMTC.

In addition to the requirements in Section 5.1, Special Permits, and Section 5.33, Site Plan Review Procedure, the provisions of this Section 15 shall apply to Marijuana Establishments and MMTCs.

Marijuana Establishments (except for Marijuana Retailers), and MMTC-CPs shall be permitted in the Commercial District, the Mill Conversion Overlay District and Major Development Overlay Districts. MMTC-CPs and Marijuana Cultivators shall also be permitted in the Rural District.

There shall be no more than two (2) Marijuana Retailers and no more than two (2) MMTC-DR permitted within the Town and such uses shall be restricted to the Commercial District and the Mill Conversion Overlay District. There shall be no more than one Marijuana Retailer in the Commercial district and one Marijuana Retailer in the Mill Conversion Overlay District.

No marijuana shall be smoked, eaten, or otherwise consumed or ingested on the premises of any Marijuana Establishment or MMTC absent a positive vote by ballot question presented to the voters of the town at a biennial state election pursuant to G.L. c.94G, §3(b). The prohibition on on-site consumption shall also include private social clubs or any other establishment which allows for social consumption of marijuana or marijuana products on the premises, regardless of whether the product is sold to consumers on site.

15.4 Buffer

No Marijuana Establishment or MMTC may be located closer than three hundred feet (300') of an existing park, playground, church or other religious use, elementary, middle or high school, or state-licensed child day care center. The distance shall be measured in a straight line from the nearest point of the property line in question to the nearest point of the property line where the Marijuana Establishment or MMTC is or will be located.

15.5 Security Plan

In addition to the submission requirements for special permits and site plans, the application shall include a security plan approved by the state licensing agency in obtaining a provisional license. The Police Chief may request additional security measures and the Planning Board will incorporate the Chief's recommendations in the special permit decision to the maximum extent practicable.

15.6 Additional Standards Applicable to Marijuana Establishments and MMTCs

1. An applicant shall possess a license from the Cannabis Control Commission or the Department of Public Health, as the case may be, to operate a Marijuana Establishment or MMTC, and shall comply with applicable state regulations at all times.
2. The proposed plan shall conform to §5.1, Special Permits, §5.35, to Standards for Approval of Site Plans, to §13, Mill Conversion Overlay District, if applicable and to §14 Major Development Overlay District, if applicable.
3. Where feasible, the site plan shall provide a ten-foot (10') high landscaped buffer on the sides and rear of the property to shield security features and minimize the visual impact on the neighborhood.
4. No use shall be allowed at a Marijuana Establishment or MMTC which creates a nuisance to abutters or to the surrounding area, or which creates any hazard, including but not limited to, fire, explosion, fumes, gas, smoke, odors, obnoxious dust, vapors, offensive sound or vibration,

flashes, glare, objectionable effluent or electrical interference, which may impair the normal use and peaceful enjoyment of any property, structure or dwelling in the area.

5. All facilities shall be ventilated in such a manner that no pesticides, insecticides or other chemicals or products used in the cultivation or processing are dispersed into the outside atmosphere and no odor from marijuana or its processing can be detected by a person with an unimpaired and otherwise normal sense of smell at the exterior of the Marijuana Establishments or MMTC or at any adjoining use or property.
6. A Marijuana Establishment or MMTC may have one standing sign and one wall sign to identify the use within. The standing sign shall not exceed thirty-two (32) square feet and the wall sign shall not exceed sixteen (16) square feet. The Planning Board may approve up to three on-site directional signs to direct patrons to the building and parking area; each such sign may contain up to four (4) square feet of sign area. Off-site signage shall be prohibited.
7. The Planning Board, as a special permit condition, may limit the hours of operation of a Marijuana Establishment or MMTC to mitigate any adverse impact on nearby uses, but if none are specified in the special permit, hours of operation shall be between 8:00 AM and 8:00 PM Monday through Saturday.
8. Noise shall comply with the Noise Policy of the Mass. Department of Environmental Protection and Division of Air Quality regulations, 310 CMR 7.10.
9. The site plan shall show adequate parking for the anticipated level of use. The Planning Board may require a traffic study that includes an analysis of parking demand to justify the number of proposed parking spaces.
10. A special permit granted under this Section 15 shall be personal to the applicant and shall lapse if the applicant no longer is the holder of a license by the applicable Massachusetts licensing authority. A change of the licensee shall require submission of an application for a new special permit, or modification of the existing special permit to the Planning Board for approval.

15.7 Severability.

The provisions of this Bylaw are severable. If any provision, paragraph, sentence, or clause of this Bylaw or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this Bylaw.

SECTION 16 COMMERCIAL WIND ENERGY

16.1 Purpose

The purpose of this bylaw is to provide standards for the placement, design, construction, operation, monitoring, modification, and removal of Commercial Wind Energy Facilities (CWEF); to protect public safety, health and welfare; to protect and minimize impacts on property values; to protect and preserve farmland and open space; to minimize impacts on scenic, natural and historic resources of Warren; to reduce/eliminate the danger from fire, as well as the hazards and nuisances related to and caused by these systems, including but not limited to noise, shadow/flickering; and property damage due to ice throw, ice shredding, or blade throw; and to provide adequate financial assurance for the eventual decommissioning of such energy facilities.

The provisions set forth in this bylaw shall take precedence over all other bylaws when considering applications related to the construction, operation, and/or repair of land-based CWEF.

16.1.1 Permit Granting Authority: The Planning Board shall be the Special Permit Granting authority for all CWEF. Failure to meet any of the following requirements will result in fines as per the *Town of Warren's General Bylaws, Article 1, Section 4, Article XIV*.

16.2 Applicability

This bylaw applies to all Commercial Wind Energy Facilities (CWEF) and to physical modifications that significantly alter the type, configuration, or size of these facilities or related equipment.

Exempt from this section of the zoning bylaw are Non-Commercial Accessory Wind Energy Systems (NCWES) that provide energy primarily for on-site uses.

16.3 General Requirements

16.3.1 Compliance with Laws, Ordinances and Regulations: The construction and operation of all such proposed CWEF shall be consistent with all applicable local, state and federal requirements, including, but not limited to, all applicable safety, construction, environmental, electrical, communications and aviation requirements.

16.3.2 Building Permit and Building Inspection: No CWEF shall be erected, constructed, installed, or modified as provided in this section without first obtaining a building permit.

16.3.3 Fees: The application for a building permit for a CWEF must be accompanied by the fee required for a building permit.

16.3.4 Site Plan Review: All CWEF shall undergo site plan review by the Planning Board prior to construction, installation, or modification, as provided in this section.

1. Upon receipt of an application, the Planning Board may engage, at the applicant's expense, professional and technical consultants, including legal counsel, to assist the Board with its review of the application in accordance with the requirements of *M.G.L. c. 44 sec. 53G*. The Planning Board may direct the applicant to deposit funds with the Planning Board for such review at the time the application is accepted, and may require the applicant to add additional funds as needed, upon notice. Upon approval of the application, any excess amount in the account attributable to the application, including any interest accrued, shall be returned to the applicant.

16.3.5 General: All plans, maps, tests, and studies shall be prepared, stamped, and signed by a professional engineer licensed to practice in Massachusetts.

16.3.6 Required Documents: In addition to the submission requirements in the Planning Board's Site Plan Review Regulations, the applicant shall provide 15 copies of the following documents at the time of application, unless otherwise noted:

1. Surveyed Plans and engineered drawings of the CWF signed and stamped by a Registered Land Surveyor and by a Professional Engineer licensed to practice in Massachusetts, showing the proposed layout of the system, with the following:
 - a. Existing Conditions: property lines, physical features, and dimensions of the site parcel, including, but not limited to: wetlands and related buffer zones, rivers and associated riverfront areas, land subject to flooding, vernal pools, FEMA flood plains, logging or access roads, forested areas, forest density, average height of trees, other existing vegetation, and contour lines every 2 ft. within the limit of work plus 200 ft. beyond the limit of work;
 - b. Outlines and physical dimensions of all existing buildings and structures on-site labeled with purpose;
 - c. Locations of public water supply and associated aquifer;
 - d. Location of all existing above ground or overhead gas or electric infrastructure, including Critical Electric Infrastructure and utility rights of way (ROW) and easements, whether fully cleared of vegetation or only partially cleared, within 500 ft. of the site parcel;
 - e. Proposed: Surveyed layout of the proposed system/facility, including turbines/towers, foundations, and all related equipment and structures such as: guy wires and anchors, accessory structures and buildings, security barrier, exterior lighting, FAA lights, transmission infrastructure, stormwater controls, and other site management devices. Physical dimensions of all structures shall be included;
 - f. Limit of Work Fence and all construction staging areas to be on the site parcel;
 - g. Construction Stormwater Management and erosion controls to be implemented, including locations where water will be discharged when dewatering is required;
 - h. Construction Phases with detailed notes on plan;
 - i. Permanent Stormwater Management Controls and if utilizing, include location of test pits, with notes identifying depth to mean annual high groundwater or mottling, whichever is higher;
 - j. Location of all existing and proposed roads: public, private, and temporary; emergency vehicle turnarounds; driveways, and designated parking areas;
 - k. Proposed changes to the landscape of the site including: grading, cuts and fill, vegetation clearing, pollarding, and screening vegetation if necessary. Boundaries of existing vegetation shall be shown in lighter lines beneath;
 - l. Tower and foundation drawings (for the Building Inspector);
 - m. Documentation of the Wind Energy System manufacturer and model;
 - n. Rotor diameter, blade length and width, tower height, tower type (freestanding or guyed), and foundation type/dimensions;
 - o. Nameplate capacity of the proposed CWF;
 - p. An electrical diagram detailing the CWF: turbines, associated components, and electrical interconnection methods, with all State and National Electrical Code and National Electrical Safety Code compliant disconnects and overcurrent devices;

- q. All proposed soil and groundwater monitoring locations per *16.3.18 Safety and Environmental Standards, Subsection 5* and the *Wind Environmental Protocols* document available on the Town website;
 - r. All proposed *sound monitoring locations* per *16.3.18 Safety and Environmental Standards, Subsection 1.a.i*;
2. Certifications, if any, of the CWEF shall be noted, for example: Small Wind Certification Council, American Wind Energy Association, National Renewable Energy Laboratory, California Energy Commission, or the New York State Energy Research and Development Authority;
 3. A document listing the qualified professionals utilized in preparation of this project, including: specialty, firm name, and specialists' names and titles;
 4. Documentation of actual or prospective access and control of the project site per *16.3.7 Site Control*, together with documentation of all applicable title encumbrances (e.g., utility ROW easements);
 5. An Operation and Maintenance Plan per *16.3.8 Operation & Maintenance Plan*;
 6. Emergency Shut Down Plan and Non-Emergency Guidelines per *16.3.10 Shut Down Plan*;
 7. Proof of Utility Notification per *16.3.12 Utility Notification*;
 8. MET Tower Data, 12 months or equivalent available data;
 9. Evidence of compliance or non-applicability with Federal Aviation Administration requirements;
 10. Construction Stormwater Analysis per *16.3.17 Design Standards, Subsection 12 Stormwater*;
 11. Stormwater Analysis for proposed, permanent Stormwater Controls per section *16.3.17 Design Standards, Subsection 12 Stormwater*;
 12. Deep hole tests report (if permanent Stormwater Controls are to be utilized), stamped by a Certified Soil Evaluator and witnessed by an agent from the Town per section *16.3.17 Design Standards, Subsection 12 Stormwater*;
 13. Sound Analysis per *16.3.18 Safety and Environmental Standards, Subsection 1 Sound*;
 14. Shadow/Flicker Analysis per *16.3.18 Safety and Environmental Standards, Subsection 2 Shadow Flicker*;
 15. Ice Throw Analysis per *16.3.18 Safety and Environmental Standards, Subsection 3 Ice Throw, Blade Fragment Throw*;
 16. Baseline Soil and Groundwater report per *16.3.18 Safety and Environmental Standards, Subsection 5 Phase I ESA and Soil and Groundwater Testing*. Both reports must be presented to the Planning Board with the Special Permit application materials;
 17. Bedrock structural survey plan per *16.3.18 Safety and Environmental Standards, Subsection 6 Geological Survey*;
 18. A glare analysis and proposed mitigation, if any, to minimize the impact of glare or strobe effect on affected properties;
 19. Written confirmation from the Board of Assessors and the Collector of Taxes that all Real Estate, Rollback and Conveyance taxes, liens, betterments, and special assessments are satisfied in full, and that all associated land has been removed from Chapter 61;

20. Orders of Resource Area Delineation or Orders of Conditions obtained from Warren Conservation Commission;
21. Technical specifications and documentation of the major system components, including cold weather package;
22. Material Safety Data Sheets (SDS/MDS):
 - a. The applicant shall provide to the Building Inspector and Planning Board Safety Data Sheets (SDS)/Materials Data Sheets (MDS) for all components of (internal and external), and products for, construction of the CWF;E;
 - b. The Building Inspector, Planning Board, and Board of Health may request such additional information as needed to evaluate the Special Permit application;
23. A complete list of all oils, hazardous materials, volatile organic compounds, etc. that may be used on-site;
24. The names, addresses, telephone numbers, and email address of:
 - a. All owners of land and businesses related to this project;
 - b. Applicant and all co-proponents;
 - c. Proposed installer, operator (final inspection), and agents authorized to act on their behalf (before building permit);
 - d. FERC licensee (before final inspection);
 - e. Active emergency contact who can be on-site within two hours during construction and after project completion/during operation;
25. A comprehensive decommissioning cost estimate per sections *16.5.3 Financial Surety*;
26. Prior to the Issuance of a Building Permit:
 - a. Proof of liability insurance per *16.3.11 Insurance, Subsection 1*;
 - b. The applicant shall identify a responsible person and contact phone number in the event of public inquiries or complaints per *16.3.10 Shut Down Plan, Subsection 2 Non-Emergency Guidelines, a*;
 - c. Financial Surety that satisfies *Section 16.5.3 Financial Surety* of this Bylaw.

The Planning Board may waive strict compliance with these submission requirements for good cause shown prior to the submission of an application, with such waivers being set forth in the application and the Board's decision on the application.

16.3.7 Site Control: Control shall include the legal authority to prevent the use or construction of any structure for human habitation, or inconsistent or interfering use, within the entirety of the project site, including setback areas.

16.3.8 Operation & Maintenance Plan: The applicant shall submit a plan for the operation and maintenance of the CWF, to remain on file with the Planning Board, which should address general procedures and schedules for operating and maintaining the facility and site, as well as frequency and content of reporting. The O&M shall address the following:

1. Fully identify the parties responsible for owning and operating the turbine(s);
2. Schedules and Measures for maintaining safe access, storm water controls, and vegetation;
3. Schedules and procedures for Inspection and Maintenance of Turbines and related equipment per manufacturers recommendations;
4. Schedules and measures to comply with *16.3.18 Safety and Environmental Standards, Subsection 5b Phase I ESA and Soil and Groundwater Testing*: At 24-month intervals following commencement of operations, soil and groundwater sampling events will be conducted at each CWF until termination of operations;

5. Schedules and methods for measuring sound, flicker, stray voltage, and other potential impacts throughout normal operations as per 16.3.18 *Safety and Environmental Standards*;
6. Emergency contacts and procedures;
7. The entity, name, and contact information of the person responsible for submitting the required Operation and Maintenance report to the Building Inspector and the Planning Board;
8. O&M reports should be submitted to the Building Inspector and the Planning board on a quarterly basis, See 16.4.3. *Reporting, Subsection 1 O&M Reports*.

16.3.9 Hazardous Material Release: In the event of a release of oil or hazardous material, Applicant must make all appropriate notifications to the Massachusetts Department of Environmental Protection (DEP) in accordance with the *Massachusetts Contingency Plan at 310 CMR 40.0000*. Applicant must advise the Town Emergency Services within 2 hours of any such release.

16.3.10 Shut Down Plan:

1. **Emergency Shut Down Plan:** An emergency shut down Plan, approved by both the Fire and Police Chiefs identifying shut down procedures/protocol shall be submitted: Emergency contact information should be provided in this plan.
2. **Non-Emergency Guidelines:** The applicant shall provide a summary of mitigation measures proposed to address non-emergency impacts identified in 16.3.18 *Safety and Environmental Standards*:
 - a. **Public Inquiries/Complaints:** Prior to the issuance of a building permit, the applicant shall submit the contact information of the person(s) responsible for addressing public inquiries or complaints for as long as the CWF is in place. Complaints that cannot be promptly resolved by the parties shall be forwarded to the Building Inspector, with a copy to the Planning Board, by the responsible person identified above. Updates to contact information must be provided to the Building Inspector immediately upon change.
 - b. The applicant must provide thresholds, response time, and mitigation measures to resolve complaints related to Sound, Shadow Flicker, Ice Throw, and other impacts identified in 16.3.18 *Safety and Environmental Standards*. Shut down procedures shall be included as a means to mitigate concerns that cannot be resolved within 30 days or need to be resolved immediately.
 - c. If any Safety and Environmental Standards per Section 16.3.18 are exceeded, it shall be considered a violation of the Zoning Bylaw. The building inspector may require any and all turbines to be shut down until the violation has been remedied.

16.3.11 Insurance: At the time of application for a building permit, the applicant shall provide to the Building Inspector evidence of insurance coverage sufficient to build and operate the Wind Energy Facility. Minimum required coverage includes:

1. Five million dollars (\$5,000,000) in general liability coverage by occurrence, and ten million (\$10,000,000) in the aggregate; or an excess liability policy in the amount of ten million dollars (\$10,000,000).
2. The Town shall require catastrophe insurance for weather events including but not limited to tornado, hurricane, wind, flood or snow and ice damage, during the entire duration of said wind energy facility, which insurance coverages shall be in such amounts and in such form as acceptable to the Special Permit Granting Authority, the minimum coverage for which shall be \$10,000,000.00. It shall be a Condition of every Special Permit that coverages will be reviewed annually and updated as necessary based on changes in costs.
3. The Town shall be named as an additional insured in all such policies of insurance.

4. It shall be a Condition of every Special Permit that the Special Permit holder shall provide Certificate(s) of Insurance before a Building Permit is issued and annually thereafter to evidence that the required insurance coverages are in place. The Special Permit holder shall notify the Town if a policy is going to be cancelled for any reason and shall provide a certificate evidencing replacement coverage is in place before the policy cancellation date.
5. Coverage shall be reviewed annually prior to the anniversary of the insurance policy and updated as necessary based upon inflation benchmarks and cost fluctuations. Confirmation of this update must be submitted to the Building Inspector.

16.3.12 Utility Notification: The electric utility company that operates the electrical grid where the facility is to be located shall have been informed of the applicant's intent to install an interconnected generator, and copies of site plans showing the proposed location should have been submitted to the utility for review prior to the submission of an application for special permit and site plan review:

1. No Special Permit for the installation of a CWEF shall be approved until evidence has been given that the utility company has responded, in writing, to the interconnection notice (i.e.: pre-application report based on provided design and other documentation specifying the stage of the interconnection process the applicant is currently in).
2. No installation of a CWEF should commence until an "Interconnection Agreement" pursuant to applicable tariff and consistent with the requirements for other generation has been executed with the utility and copies provided to the Building Inspector.

Off-grid systems shall be exempt from the requirements of this section.

16.3.13 Temporary Meteorological Towers (Met Towers): A building permit shall be required for stand-alone temporary met towers. A permit for a temporary met tower shall be valid for a maximum of 3 years after which an extension may be granted. Small anemometers installed directly on buildings shall not require a building or special permit. No site plan review shall be required for met towers. Met towers shall not be located within setback distance from the sideline of any utility ROW. Such towers shall not exceed 250 ft. total and shall carry aircraft warning lights only if required. The owners shall file FAA Form 7460 and receive FAA approval prior to erecting said tower. The applicant shall provide evidence of compliance or non-applicability with FAA requirements. The tower shall be removed within 18 months of installation, and the site restored to its original condition.

16.3.14 Lot Standards:

1. **Lot Requirement:** A CWEF, including all access ways, shall comply with the Dimension and Density Requirements per *16.3.15 Dimension and Density Requirements*, and Safety Setbacks per *16.3.16 Safety Setbacks*, of this bylaw, and shall lie within the borders of the Town and shall be sited on the same parcel as recorded at the Worcester District Registry of Deeds and the Town of Warren Assessors Office;
2. **Access:** Access to the CWEF must be obtained from the lot frontage;
3. **Sharing of Property:** The CWEF shall not be sited on a parcel used for residential purposes.

16.3.15 Dimension and Density Requirements:

1. **Property Line Setbacks:** All buildings and structures associated with the CWEF, with the exception of Turbines, shall have a setback of at least 150 ft. from all property lines and public ways. The Planning Board may require a greater setback along a property line, where, in its judgement, the proposed structure is likely to negatively affect an existing or permitted land use on the abutting property;
2. **Natural Buffer:** The site plan shall provide a natural vegetative buffer of 150 ft. with a density such that no part of any structure shall be visible with the exception of the wind

turbine(s). Further, a 75 ft. vegetative buffer shall be provided between the access road and all abutting properties that lie parallel to the access road. If density requirements cannot be met, additional vegetation shall be required to minimize, to the greatest extent possible, visual impact on abutting properties and public ways throughout the year through the use of mature, native, soil-condition appropriate, and non-invasive plantings of trees and other vegetation;

3. **Appurtenant Structures:** Appurtenant structures including, but not limited to, poles, transformers, and substations shall be subject screened to the maximum extent practical to avoid adverse impacts on the neighborhood or abutting properties.

16.3.16 Safety Setbacks: Potential impacts to abutters will be mitigated by siting each turbine at the following prescribed distances from the site's property line:

1. **Sound Setbacks:** Refer to *16.3.18 Safety and Environmental Standards, Subsection 1 Sound*. The operation of the CWEF shall not exceed the following sound levels as measured at the *sound monitoring locations* at the property lines:
 - a. Broadband sound levels shall not exceed 10dB(a) above typical nighttime ambient sound levels;
 - b. Pure tone condition shall not be produced.
2. **Shadow Flicker Setbacks:** The CWEF shall be sited in a manner that minimizes shadowing or flicker impacts. The prescribed radius from the base of each turbine to the property line shall be, at a minimum, 12x the maximum tip height (MTH). The applicant has the burden of proving that shadow flicker will not occur for more than 30 minutes per day, and will not exceed a total of 6 hours per year over the property line either through siting or mitigation. Refer to *16.3.18 Safety and Environmental Standards, Subsection 2 Shadow Flicker*.
3. **Falling/Thrown Debris Setbacks:** The prescribed radius from the base of each turbine to the property line shall be, at a minimum, 10x the maximum tip height (MTH) to prevent falling debris such as ice, blades or blade pieces from impacting property or injuring those within throwing distance. This area shall be under legal control of the applicant. The applicant has the burden of proving that falling debris cannot occur beyond this distance. Refer to *16.3.18 Safety and Environmental Standards, Subsection 3 Ice Throw, Blade Fragment Throw*.
4. **Ground Voltage:** Stray ground voltage shall be less than .5 mA constant current, or less than 2 volts at property boundaries. Refer to *16.3.18 Safety and Environmental Standards, Subsection 4 Stray Voltage*.
5. **Groundwater Protection:** A CWEF shall not be located within 5000 ft. of the Warren Groundwater Protection District as defined in Section 9.4 of *the Town of Warren Zoning By-Laws* and as seen on a map by Dufresne-Henry dated March 2005, also as seen on the Town website.

16.3.17 Design Standards:

1. **Appearance, Color and Finish:** Color and appearance shall comply with Federal Aviation Administration (FAA) safety requirements. Where applicant is seeking a non-standard color in an area not regulated by the FAA, the Planning Board has authority to regulate color of turbine.
2. **Cold Weather Package:** To prevent ice throw and other problems due to cold weather, each turbine should be equipped with a cold weather package that either heats the blade / de-ices it, or shuts down the system.
3. **Height:** The height (MTH) of CWEF shall not exceed 250 ft.
4. **Lighting:** Wind turbines shall be lighted only if required by the Federal Aviation Administration. Lighting of other parts of the wind energy facility, such as appurtenant

structures, shall be limited to that required for safety and operational purposes, and shall not be intrusive in any way on abutting properties. Lighting shall incorporate full cut-off fixtures to reduce light pollution.

5. **Signage:** The CWEF shall have one sign not exceeding 32 sq. ft. in area identifying the operator and providing a 24-hour emergency contact telephone number and warn of any danger. Wind turbines shall not display any advertising except for reasonable identification of the manufacturer or operator of the facility. The site may have a secondary sign not exceeding 16 sq. ft. in area providing educational information about the facility and the benefits of renewable energy.
6. **Utility Connections:** All utility wires within 150 ft. of property boundaries shall be located underground, either in or adjacent to the access road.
7. **Commercial Energy Storage Systems:**
 - a. Energy Storage shall be prohibited from use on the CWEF.
8. **Access roads:** All access roads shall be a minimum of 20 ft. wide with appropriate turn-arounds based on the Fire Department's current apparatus dimensions.
9. **Site Vegetation:** Any disturbed area that shall remain unforested (excluding roads and stormwater controls) shall be vegetated with meadow, appropriate to the soils of the site.
10. **Glare:** Wind turbines shall be painted in such a way that there is no possibility of glare or strobe effect on a residence or public way at any time during the day.
11. **Town Aquifer:** Facilities shall not be sited over the Town's aquifer/public water supply.
12. **Stormwater:**
 - a. All stormwater must comply with the NPDES Stormwater General Permit and Massachusetts Stormwater Standards.
 - b. All stormwater must recharge on the site both during and after construction, and shall not leave the property.
 - c. Permanent stormwater controls cannot be used for construction stormwater purposes.
 - d. Construction Stormwater: Means and methods in place to manage stormwater during all phases of construction must be submitted, including mitigation measures and materials to be available on-site, and means for dewatering construction basins. Locations for dewatering discharge shall be identified on plans, along with Limit of Work (LOW) barriers, and erosion control locations and descriptions.
 - e. If the proposed CWEF is designed *without* permanent stormwater controls, the applicant must provide evidence of onsite recharge. Stormwater runoff shall not impact the integrity of onsite access roads.
 - f. If the CWEF is designed *with* permanent stormwater controls:
 - i. The outflow must be located 150 ft. from abutting property boundaries, wells, and septic systems. Water must be shown to recharge on-site and have no impact on abutting properties or the street;
 - ii. Deep hole tests shall be performed in all proposed stormwater feature locations, identifying depth to mean annual high groundwater or mottling, whichever is higher. Deep hole tests shall also be performed within each sub-catchment area - minimum 2 per acre. Deep hole tests must be conducted in accordance with the *Massachusetts Stormwater Handbook*, and shall be witnessed by an agent of the Town.

16.3.18 Safety and Environmental Standards:

1. **Sound:** The sound analysis shall include the following information and the following requirements be met:
 - a. The applicant shall submit manufacturer's documentation of sound impacts of the wind turbine(s) under various wind conditions, represented by a chart or map indicating the expected decibel levels as well as actual ambient sound levels, at given distances from the wind turbine(s):
 - i. 8 *sound monitoring locations* equally spaced around the entire parcel along property lines shall be designated for sound modeling and measurement. Each location shall be surveyed, staked, flagged and labeled and should be identified on submitted plans. These locations will be used for modeling sound and measuring ambient sound, and are to be used for monitoring/measuring sound throughout the facility's lifespan;
 - ii. Expected decibel levels shall be given for the base of each tower, at the 8 *sound monitoring locations*, moving out in 50-foot increments from each of the 8 sound monitoring locations until the broadband sound level is no more than 10dB(A) over ambient sound and pure tone sound levels are not produced. The study should also identify properties located on peaks horizontally across valleys from the turbine, as well as homes/receptors closest to the turbine(s), and include modeled sound levels for these properties. The analysis shall take into consideration following:
 - A. Turbine sound modeling shall include analysis of, but not limited to, the following: intermittent sound; sound power; spreading loss; atmospheric attenuation; barriers; ground attenuation and topography; meteorology, including seasonal variation; and wind direction, speed, and shear;
 - B. All sound emissions created by each wind turbine individually and together in multi-turbine systems shall be modeled. Sound modeling/analysis shall be based on the highest combined sound output possible. Detail of how the noise levels were determined shall be submitted.
 - b. Ambient Sound should be measured at the property line at the 8 *sound monitoring locations* per 16.6 Definitions. The sound analysis shall include measurements of ambient sound levels under typical nighttime conditions (between 10PM and 2AM). The ambient sound levels at each location should be based on the average of at least 3 measurements taken over the course of multiple weeks. The applicant shall specify the conditions under which ambient sound levels are measured, as well as frequency and duration of these measurements.
 - c. The Planning Board may request measurement or modeling to the degree necessary to determine the potential sound impacts of the proposed CWEF, and to employ the services of its own acoustical expert at the expense of the applicant.
 - d. The applicant shall have the burden of proving that the sound generated by the proposed CWEF will not have a significant adverse impact on adjacent land uses and will meet the Sound Setbacks per 16.3.16 Safety Setbacks, Subsection 1 Sound Setbacks.
 - e. An analysis prepared by a qualified acoustical expert shall be presented to demonstrate compliance with the noise setback.
2. **Shadow Flicker:**

The applicant must demonstrate that shadow flicker will not occur for more than 30 minutes per day, and will not exceed a total of 6 hours per year over the property line either through siting or mitigation:

- a. **Shadow Flicker Analysis:** The applicant shall submit shadow flicker analysis which shall take into account the shift of the shadow as the sun moves throughout the day and year. Further, if a yaw system is utilized, the study and shadow flicker shown on plans must also account for the full yaw range of motion. Study parameters and assumptions should be identified and explained. The study should:
 - i. Assess potential annual impacts on the parcels within Shadow Flicker Zone 2, specifying the number of days and duration that shadow flicker impacts will occur overall and on individual parcels. Shadow Flicker Zone 2 is the radius from the outer edge of Shadow Flicker Zone 1 to 16x the MTH from the turbine;
 - ii. Plan(s) or map(s) with overlays shall be submitted identifying anticipated shadow flicker that will occur in Shadow Flicker Zones 1 and 2. Parcels within Shadow Flicker Zone 2 shall be identified;
 - iii. The study shall be certified and signed by an entity qualified to evaluate the frequency and severity of shadow/flickering caused by the CWEF.
 - b. **Mitigation:** The applicant shall identify mitigation measures relied upon to ensure that shadow flicker does not exceed day and duration limitations. The reliability of these measures must be demonstrated, as shall the successful implementation of these measures in other locations.
3. **Ice Throw, Blade Fragment Throw:**
 - a. Provide details on how the system detects ice accretion, and how the system shuts down when ice is detected. Include data on the accuracy of the detection system and a back-up plan in case of failure.
 - b. Provide calculations for worst-case ice throw – ice being thrown from moving blades at maximum velocity from the azimuth with strong winds.
 - c. Provide a plan that visually represents the calculated ice throw range as well as a radius around each turbine based on distances 10x the MTH.
 - d. If a blade breaks up, all fragments must be collected and removed from the site for proper disposal. An assessment report shall be provided evidencing that all fragments have been accounted for. Documentation of proper disposal shall be provided.;
 4. **Stray Voltage:** Ground voltage/ current tests must be performed at all property bounds to ensure no stray voltage is leaving the site, causing adverse effects on animals and livestock. Annual testing must show less than 0.5mA constant current of less than 2 volts. Refer to *Agricultural Handbook 696, Effects of Electrical Voltage/Current on Farm Animals* for testing procedures.
 - a. Stray Voltage shall be measured 1x a year, at multiple locations around the circumference of the property. The electrical inspector or representative of the Town shall witness the measurement of stray voltage.
 - b. If stray voltage is found to be present, the power source must be taken off line until the cause of the current/voltage leak is found and repaired.
 - c. Copies of the inspection reports and stray voltage results shall be submitted to the Building Inspector and Planning Board with the quarterly O&M. In the event voltage exceeds required limits, the Building Inspector shall be notified within 24 hours of measurement.

5. **Phase I ESA and Soil and Groundwater Testing:**

All soil and groundwater assessments shall be conducted in accordance with the *Wind Environmental Protocols* document adopted by the Planning Board and available on the Town website.

- a. Prior to construction and commencement of operations, Applicant shall conduct a Phase I ESA and a Soil and Groundwater Assessment (SSA) to establish an environmental baseline.
- b. At 24-monthly intervals following commencement of operations, soil and groundwater sampling events will be conducted at each CWEF until termination of operations.
- c. Subsequent to decommissioning and removal of each CWEF, the Applicant shall conduct a final SSA with additional soil sampling.
- d. Based on the results of the SSA, the MSDS sheets, and other related criteria, the Town of Warren will require flexibility to adjust its sampling requirements and analytical protocol for soil and groundwater samples collected as well as access to the site.

6. **Geological Survey:** A bedrock structural survey shall be conducted based on existing geological data to determine significant fracturing and trend lines in the vicinity of the CWEF:

- a. A map indicating the presence of any significant bedrock fracturing in the vicinity of any wind turbine;
- b. An opinion rendered by a Structural Geologist on the results of the bedrock structural survey.

7. **Chemical usage:**

- a. Chemical de-icing of turbine components is strictly prohibited.
- b. Subject to *M.G.L. c 132B*, the Massachusetts Pesticide Control Act, and the regulations promulgated thereunder, the use of pesticides and herbicides within 200 ft. of areas defined in *333 CMR 11.00 and 14.00*, e.g. roadways, agricultural areas, sensitive areas, wetlands and vernal pools is prohibited.
- c. Applicant shall provide to the Building Inspector and the Fire Chief a complete list of all hazardous materials such as oils and volatile organic compounds that may be used on-site. Storage of hazardous materials shall NOT be allowed on-site.

8. **Wetland Resource Areas:** The turbine shall be located 200 ft. from all wetlands, vernal pools, intermittent and perennial streams, lakes and ponds identified in an Order of Resource Area Delineation or an Order of Conditions issued by the Warren Conservation Commission.

9. **Land Clearing, Soil Impacts, Habitat Impacts:**

- a. Clearing of natural vegetation shall be limited to that which is necessary for the construction, operation and maintenance of the wind energy facility or otherwise prescribed by applicable laws, regulations, and bylaws, and subject to existing easements, restrictions and conditions of record. The installation design shall minimize fragmentation of open space. No more than 5 acres shall be open at once during construction as per Massachusetts Construction General Permit, and shall be 75% stabilized prior to opening more land. No earthwork shall take place from December 1 - April 15. The site shall be stabilized during that period. Designs shall also minimize soil removal, and grade changes.
- b. No topsoil shall be removed from the site without a permit from the Warren Conservation Commission per the Town of Warren's *General Bylaw, Article XI - Removal of Topsoil*.

10. **Emergency Services:** The operator shall provide a copy of the: project summary, operation and maintenance plan, electrical schematic, site plan, and list of all hazardous materials such as oils and volatile organic compounds that may be used on-site, to the Warren Fire Chief and Police Chief. The applicant shall identify an official representative for public inquiries throughout the life of the installation:
 - a. The operator shall cooperate with local emergency services in developing an *emergency response plan* which will ensure that emergency personnel have immediate, 24-hour access to the facility;
 - b. Safety personnel may request at any time that the operator provide on-site training in accessing and shutting down CWEF. All means of shutting down the CWEF shall be clearly marked;
 - c. The emergency response plan shall be reviewed annually with local emergency officials and revised as necessary;
 - d. The operator shall identify a qualified local contact person who can provide assistance to local officials during an emergency, with the ability to be on-site within 2 hours;
 - e. The operator shall update the contact information immediately and so notify the Warren Fire Chief and Police Chief whenever there is a change in contact personnel or information;
 - f. Any onsite access road will be cleared and sanded within 24 hours after a snowfall of 6 inches or more to make them accessible to emergency vehicles.
11. **Unauthorized access:** CWEFs shall be designed to prevent unauthorized access. For instance, the towers of wind turbines shall be designed and installed so that step bolts or other climbing features are not readily accessible to the public and so that step bolts or other climbing features are not installed below the level of 15 ft. above the ground. Electrical equipment shall be locked where possible.

16.3.19 Special Permit Decision:

1. **Special Permit Findings:** Applications under *Section 16 Commercial Wind Energy Facilities* shall only be approved by the Planning Board upon its finding that the review criteria above and the review criteria of Section 5.1 of the Zoning Bylaw have been satisfied, together with the standards found under *Section 5.3 Site Plan Review* of the *Town of Warren Zoning Bylaws*.
2. **Approval:** No special permit shall be approved for any application not able to demonstrate compliance with *16.3.16 Safety Setbacks* and *16.3.18 Safety and Environmental Standards*.

16.3.20 Construction Impact:

Prior to the issuance of the Certificate of Occupancy, the applicant shall repair any construction related damage to Town ways under the direction of the Highway Surveyor. Once complete, a letter from the Highway Surveyor stating that any and all damage has been repaired or is otherwise unnecessary must be presented to the Building Inspector.

16.4 Monitoring, Maintenance, Reporting, Modifications

- 16.4.1 **Inspections/Monitoring:** Every CWEF shall be subject to quarterly monitoring and inspections, with a quarterly report submitted to the Planning Board and Building Inspector within 30 days:
 1. An evaluation of all mechanical and structural components, especially safety, performed by professionals with the proper registrations / licenses.
 2. Annual Environmental Tests: Sound per *16.3.18 Safety and Environmental Standards, Subsection 1 Sound*, and Stray Voltage per *16.3.18 Safety and Environmental Standards, Subsection 4 Stray Voltage*.

3. At 24-month intervals following commencement of operations, soil and groundwater sampling events will be conducted at each CWEF until termination of operations per *16.3.18 Safety and Environmental Standards, Subsection 5b*.

16.4.2 Maintenance: The applicant shall be responsible for the cost of maintaining the facility, the site, and any access road(s), and the cost of repairing any damage as a result of construction and operation:

1. The operator shall maintain the facility in good condition. Maintenance shall include, but not be limited to, painting, structural repairs, integrity of security measures, and vegetation control. The operator shall be responsible for maintaining access for maintenance equipment as well as emergency vehicles that is determined to be adequate by the Warren Fire Chief and Police Chief through an annual inspection. Any on-site access roads will be cleared and sanded within 24 hours after a snowfall of 6 inches or more to make them accessible to emergency vehicles.

16.4.3 Reporting:

The following shall be submitted to the Building Inspector and Planning Board within 30 days of inspection and maintenance. Failure to file any report within the required time frame shall be considered a violation of the Zoning Bylaw. The Building Inspector may take action as described in *Sections 16.4.5 Enforcement*;

1. **O&M Reports:**

The applicant shall file quarterly operation and maintenance reports with the Building Inspector and the Planning Board. The report will include:

- a. Data from all inspections and maintenance performed that quarter;
- b. Annual measurement of sound, stray voltage, and any other potential impacts throughout normal operations*;
- c. Every 24 months: Soil and groundwater sampling results*;
- d. Updated O&M Reporting Contact information;

* *In the event test results exceed required limits, the Building Inspector shall be notified within 24 hours of testing;*

2. An updated, comprehensive Decommissioning Cost Estimate shall be submitted every 5 years to the Building Inspector and Planning Board per *16.5.3 Financial Surety, Subsections 1 and 2*.

3. **Change of Ownership:** Within thirty 30 days of any change to the ownership of any part of the facility, to the property, or to the operator of the facility, the Town shall be provided with complete and updated contact information (name, telephone, email and mailing addresses) for:

- a. All owners of land and businesses related to the facility;
- b. Operator and agents authorized to act on their behalf;
- c. FERC licensee;
- d. Active emergency contact who can be onsite within two hours.

16.4.4 Modifications: After issuance of the Special Permit, all substantial modifications to the facility require approval of the Planning Board unless exempt under this bylaw. A change to the specifications of any of the equipment installed at the site or a change that alters the type, configuration, or size of the facility shall be considered a substantial modification. The operator shall apply to the Planning Board for a determination as to whether a proposed modification is substantial. The Planning Board will forward all changes to appropriate boards for review and approval.

16.4.5 Enforcement:

1. **Building Inspector:** The Building Inspector shall be responsible for enforcement of the provisions of *Section 16* pursuant to *Section 6.1* in the Zoning Bylaw.
2. **Zoning Bylaw Violations:** Failure of the owner of any CWEF to comply with the operational standards, mitigation measures, annual inspections, and reporting requirements, shall be considered a violation of the Zoning Bylaw.

16.5 Decommissioning, Removal, Abandonment, Financial Surety

Any CWEF that has reached the end of its useful life or has been abandoned, as defined below in *Section 16.5.2 Abandonment*, shall be physically removed.

16.5.1 Decommissioning and Removal:

1. **Scheduled Decommissioning:** For a scheduled decommissioning, the owner shall notify the Building Inspector and Planning Board by certified mail of the proposed date of discontinued operations and submit plans for removal *per Section 16.5.1 Decommissioning and Removal, Subsection 2 Removal Requirements* at least 60 days in advance of planned removal. The owner shall physically remove the facility not more than 150 days after the date of discontinued operations. All additions and upgrades made to the site after the receipt of a building permit shall be removed and the site shall be stabilized with vegetation. Any deviations from the removal requirements listed below will require a Special Permit, issued by the Planning Board. No earthwork shall be performed between December 1st – April 15th.
2. **Removal Requirements:** Removal shall consist of the following:
 - a. Physical removal of all equipment from the site, including, but not limited to: wind turbines, stormwater controls and associated materials; all appurtenant structures and equipment; buildings, concrete pads and foundations, security barriers; conduit and transmission lines above and below grade.
 - b. Physical removal and proper disposal of all hazardous materials such as oils and volatile organic compounds associated with the operation of each turbine.
 - c. Subsurface Soil and Groundwater Assessment (SSA) must be performed in accordance with the *Wind Environmental Protocols* document available on the Town Website as per section *16.3.18 Safety and Environmental Standards, Subsection 5 Phase I ESA and Soil and Groundwater Testing*, after facility and related structures have been removed, but prior to any backfilling.
 - d. Access roads shall be physically removed. All access roads shall be stricken by deed and by survey and recorded at the Worcester Registry of Deeds – including access roads that have been allowed to remain via Special Permit. Proof of recording shall be given to the Building Inspector prior to the receipt of disbursement per the *Wind Decommissioning Disbursement Schedule* document, which can be found on the Town website.
 - e. Stabilization or re-vegetation of the site as necessary to minimize erosion.
3. **Notice of Removal Documentation:** A Discontinued Operations Notice shall be accompanied by the following documentation:
 - a. Plans that include:
 - i. Location of all equipment, conduit, buildings, structures, property lines and physical features including, but not limited to: wetlands and related buffer zones, access roads, forested areas, existing vegetation;
 - ii. Limit of Work and placement of erosion control prior to commencement of deconstruction as well as laydown/staging area location(s);

- iii. Subsurface soil and groundwater sampling locations per section, *16.5.1 Decommissioning and Removal, Sub-section 2c Removal Requirements* and the *Wind Environmental Protocols* document available on the Town website;
 - iv. **Phasing of Facility Removal:** detailed in plan notes identifying the work to occur in each phase. Reference *Wind Energy Disbursement Schedule* document which can be found on the Town website;
 - v. Stabilization / re-vegetation shown on plans and in notes, including details about monitoring of the site as necessary to minimize erosion during regrowth;
- b. Documentation that includes:
- i. Materials removal, disposal method, cost;
 - ii. Emergency Response and Communications Plan as it pertains to the decommissioning phase of the project;
 - iii. A letter or permit from Warren Conservation Commission either confirming that work will take place outside jurisdiction or work within jurisdiction is approved.
 - iv. Proof of Insurance per *16.3.11 Insurance*.

16.5.2 Abandonment:

1. The CWF shall be considered abandoned if:
 - a. Absent notice of a proposed decommissioning date, if the facility fails to operate for more than 12 consecutive months;
 - b. Absent approved request for extension, the facility is not physically removed 150 days after the date of discontinued operations.
2. **Owner Notification:** Prior to declaring the CWF to be abandoned, the Building Inspector shall notify the owner by certified mail that corrective action must be taken. The owner shall have 30 days to respond and provide a schedule for corrective action.
3. **Failure to Respond:** If the owner fails to respond within 30 days, the Building Inspector may declare the CWF abandoned, and take the following actions and those described in *16.5.3 Financial Surety*.
 - a. The Town or its agents may enter the property and physically remove all equipment and structures that comprise the CWF and restore the site to its original state. It shall be a condition of the Special Permit that the facility owner and property owner agree to allow entry to remove an abandoned installation.
 - b. If the Town's cost for the removal exceeds the financial surety received in accordance with *16.5.3 Financial Surety, Subsections 3 and 4*, the facility owner and/or property owner will be responsible for the additional costs as a fee, subject to collection under the provisions of M.G.L c 40 §. 58.

16.5.3 Financial Surety:

1. At the time of application, the applicant shall submit a Decommissioning Cost Estimate which shall include a comprehensive estimate of the costs associated with decommissioning, project dismantling, removal, and site restoration of the proposed CWF. This estimate shall be subject to peer review and approval by a professional construction estimating company retained by the Planning Board at the applicant's expense. The amount shall include an escalator for calculating increased removal costs due to inflation. An updated Comprehensive Decommissioning Cost Estimate shall be submitted every 5 years to the Building Inspector and Planning Board.
2. The Decommissioning Cost Estimate* shall be comprehensive and include the costs:
 - a. For all applicable permits and required inspections;

- b. For construction bonds / liability insurance;
- c. The construction of temporary staging area(s);
- d. For mobilization to the site for turbine, foundation, electrical equipment, and access road removal;
- e. For turbine dismantling/removal;
- f. To load/transport turbine parts for recycling / reuse / disposal;
- g. For the legal, safe, and proper disposal of all equipment and waste materials, chemicals, oils and hazardous substances in accordance with local, state, and federal regulations;
- h. For concrete demolition;
- i. For disposal of foundation materials and backfilling;
- j. To remove all electrical equipment, interconnection stations, substations, poles and related concrete pads/ foundations – above and below ground, wires and cables;
- k. To dismantle fencing and security gates;
- l. To dismantle access roads, parking areas;
- m. To remove, fill, and grade all stormwater controls, associated equipment and materials including sumps, pipes, rip rap, etc.;
- n. For vegetating the property: Fill, topsoil, seed; backfilling, grading, spreading topsoil, seeding, short-term stabilization during the growth of long-term plantings;
- o. For all professional costs including, but not limited to: engineering design for deconstruction, site restoration design (including removal of all easements), environmental professional fees, legal fees, and all associated contractor costs for sampling, analytical testing, etc.;
- p. For Consulting fees for Peer Reviews on behalf of the Town for all environmental activities and reporting in association with these requirements;
- q. Current (not estimated) costs for recycling*;
- r. For trucking and hauling waste, etc.;
- s. For Project General Conditions;
- t. For anything not mentioned, but expected to be incurred, including, but not limited to: engineering, labor, materials, permits, professional services, and waste disposal.

** No recycling or salvage value shall be calculated into the decommissioning cost.*

3. It shall be a condition of the Special Permit that upon approval of the Special Permit, the applicant shall furnish security in the form of a cash deposit (or an alternative form of surety approved by the Board in its sole and absolute discretion) to secure the orderly decommissioning of the CWF. The sum of \$750,000 for each wind turbine between 200 and 250 ft., or the full sum of the Planning Board approved Decommissioning Cost Estimate per *16.5.3 Financial Surety, Subsections 1 and 2*, whichever is greater, shall be submitted to the Town. This sum shall be held by the Town Treasurer pursuant to *M.G.L.C. 44, sec 53G ½* to cover the cost of removal and site restoration in the event the Town must remove the installation and remediate the landscape. Prior to the issuance of a building permit, the Building Inspector shall be provided with both the approved Decommissioning Cost Estimate and proof of the cash deposit from the Treasurer.

4. Every 5 years a comprehensive estimate pursuant to 16.5.3 *Financial Surety, Subsections 1 and 2*, shall be updated and submitted to the Building Inspector and Planning Board no later than 45 days after the calendar year. If the updated costs exceed the amount reserved in escrow, the balance will be deposited within 30 days. This new estimate shall be peer reviewed at the applicant's expense. Failure to submit the estimate within the required timeframe may be considered a violation of the Zoning Bylaw and the Building Inspector may take action.
5. The security shall be disbursed to the facility owner in four stages, based on the satisfactory completion and approval of decommissioning work performed, according to the *Wind Decommissioning Disbursement Schedule* adopted by the Planning Board, available on the Town website. Five percent (5%) of the decommissioning principal, along with interest accrued if any, in the account, will be retained by the Town for 2 years after completion of decommissioning to ensure 75% stabilization is met after full growing season and shall be payable to the facility owner after approval has been granted by the Town's agent or representative.
6. The Town of Warren shall be authorized to expend funds from the decommissioning account for removal of an abandoned CWEF, and shall comply with reporting requirements imposed by the Planning Board.

16.5.4 Severability: If any provision of this bylaw is held invalid by a court of competent jurisdiction, the remainder of this bylaw shall not be affected thereby.

16.6 Definitions

Accessory Wind Energy Systems (AWES) -- Wind energy systems that provide energy primarily for on-site use (by homes, farms/agriculture, businesses), and sized to generate no more than 125% of the annual projected on-site electric use. Also called **Non-Commercial Accessory Wind Energy Systems (NCWES)**.

Commercial Energy Storage Systems -- Technology that allows energy produced at one time to be stored and sold commercially at a later time. This technology includes, but is not limited to, batteries.

Commercial Wind Energy Facility (CWEF) -- A Wind Energy System consisting of one or more turbines with the primary purpose of electrical generation for sale or resale off-site. It includes any and all service and access roads, equipment, machinery, and structures utilized in connection with the conversion of wind energy into electrical power.

Height -- The height of the wind turbine measured from the grade of the land below the turbine to the tip of rotor blade at its highest point, also referred to as Maximum Tip Height (MTH).

Horizontal Access Wind Turbine (HAWT) -- HAWTs are the most commonly used type of turbine due to their efficiency and higher power generation capability for the same footprint. Rotor blades connected to a horizontal shaft rotate the shaft as the wind strikes them. The shaft is connected to a generator that produces electrical energy. HAWTs require being aligned with the wind direction. There are two types of HAWTs: Upwind, which face the wind (most commonly used), and Downwind, which faces away from the wind, the wind strikes the mast before the blades.

Ice Throw or Shredding -- In winter conditions, ice can buildup on wind turbine blades which can result in fragments of mixed ice and snow to fall or be thrown off the blades. The size, speed, and distance of falling fragments vary and depend on climate conditions and turbine operation.

Maximum Tip Height (MTH) -- The height of the wind turbine measured from the grade of the land below the turbine to the tip of rotor blade at its highest point; also referred to as height.

Nacelle -- The structure at the top of the HAWT tower just behind (or, in some cases, in front of) the wind turbine blades. It houses the key components of the wind turbine, including the rotor shaft, gearbox and generator and helps control the mechanical noise.

Non-Commercial Accessory Wind Energy Systems (NCWES) -- Wind Energy systems that provide energy primarily for on-site use (by homes, farms/agriculture, businesses), and sized to generate no more than 125% of the annual projected on-site electric use. Also called **Accessory Wind Energy Systems (AWES)**.

Nuisance -- An activity or physical condition that is indecent or offensive to the senses, or interferes with another person's reasonable use and enjoyment of life or property.

Pure Tone -- A sinusoidal waveform. When an octave band center frequency sound pressure level exceeds the two adjacent center frequency sound pressure levels by 3 decibels or more.

Rated Nameplate Capacity -- The maximum rated output of electric power production equipment. The manufacturer typically specifies this output with a nameplate on the equipment.

Rotor -- The blades and hub of the wind turbine which rotate during the operation.

Rotor Nacelle Assembly (RNA) -- Handles the conversion of the kinetic energy of the wind into electrical energy and consists of the rotor, the drive train, and various ancillary components.

The rotor grouping includes the blades, the hub, and the pitch control components.

The drive train includes the shafts, bearings, gearbox (not necessary for direct drive generators), couplings, mechanical brake, and generator.

Shadow/Flicker -- Shadow flicker results from the passage of the blades of a rotating wind turbine between the sun and the observer. The occurrence of shadow flicker depends on the location of the observer relative to the turbine and the time of day and year. Frequencies of shadow flicker elicited from turbines is proportional to the rotational speed of the rotor times the number of blades and is generally between 0.5 and 1.1 Hz for typical larger turbines. Shadow flicker occurs both inside and outside the home. Although shadow flicker is often referred to as the phenomenon that occurs inside a building through constrained opening, and the shadows created outdoors are sometimes referred to as "passing shadows", this bylaw considers BOTH Shadow/Flicker.

Shadow/Flicker Zone 1 -- The radius from the center of the turbine to 12x the MTH from the turbine.

Shadow/Flicker Zone 2 -- The radius from the outer edge of Shadow Flicker Zone 1 to 16x the MTH from the turbine.

Throw Zone -- The radius beyond the base of the turbine where objects (ice, blades, blade pieces) can fall or be thrown. The Throw Zone's prescribed radius is from the base of the turbine to 10x the maximum tip height (MTH).

Sound Monitoring Locations -- Sound monitoring locations are designated locations for sound modeling and measurement. Each location is surveyed, staked, flagged, labeled, and identified on submitted plans. These locations are to be used for modeling sound and measuring ambient sound, as well as for monitoring/measuring sound throughout the facility's lifespan.

Strobe Effect -- Refers to the flashing of reflected light which can be visible from some distance.

Structure -- As defined in the latest edition of the Massachusetts State building code under the BBRS and as defined by *MGL Chapter 143 Section 1*: A combination of materials assembled at a fixed location to give support or shelter, such as a building, framework, retaining wall, tent, reviewing stand, platform, bin, fence, sign, flagpole, recreational tramway, mast for radio antenna or the like. The word "structure" shall be construed, where the context allows, as though followed by the words "or part or parts thereof."

Swept Area -- The area through which the rotor blades of a wind turbine spin, as seen when directly facing the center of the rotor blades. Yaw creates a multi-dimensional Swept Area. The larger the diameter of its blades, the larger the Swept Area and the more power it is capable of extracting from the wind.

Wind Energy System (WES) -- An apparatus for converting the kinetic energy available in the wind to mechanical energy that can be used to power machinery and/or to operate an electrical generator. The major components of a typical wind energy system include a wind turbine, a generator, interconnection apparatus, and control systems.

Wind Monitoring Tower or Meteorological Tower (Met Tower) -- A temporary tower equipped with devices to measure wind speeds and direction, used to determine the amount of wind power a site can be expected to generate.

Wind Turbine -- A device that converts kinetic wind energy into rotational energy that drives an electrical generator. The wind turbine consists of a Rotor, Nacelle and Supporting Tower.

Yaw -- Rotation around a vertical axis.

Yaw System -- The component responsible for the orientation of the wind turbine rotor towards the wind.

Zoning Enforcement -- Zoning bylaws are enforced by the Town of Warren Building Inspector.

**APPENDIX 1
CHRONOLOGY OF ZONING AMENDMENTS**

Section 3.23.16	Amended February 7, 1989
Section 3.22.2	Amended October 23, 1989
Section 3.27	Adopted February 23, 1993
Section 3.22.4	Amended May 14, 1997
Section 1.5	Amended March 25, 1998 by adding Paragraph 2
Section 8	Adopted May 13, 1998
Section 7	Adopted May 12, 1999
Section 9	Adopted May 10, 2005 (includes amendment to Sections 2.1, 3.1, 6.3, & 8.1)
Section 3.23.7	Amended October 25, 2006
Section 3.24.4	Amended May 13, 2008
Section 1.51	Adopted June 9, 2009
Section 5.3	Adopted June 9, 2009
Section 10	Amended June 8, 2010
Section 4.35	Adopted May 10, 2011
Section 4.4	Adopted May 10, 2011
Section 10	Amended May 10, 2011
Section 11	Adopted May 10, 2011
Section 12	Adopted September 8, 2011
Sections 3.25.4 - .7	Amended September 8, 2011
Section 13	Adopted May 8, 2012
Section 14	Adopted May 29, 2013
Section 4.2	Amended May 12, 2015
Section 4.3	Amended May 12, 2015
Section 15	Adopted May 12, 2015
Sections 2 - 5, 11	Commercial District Adopted November 5, 2015
Section 7	Amended November 5, 2015
Section 4.2	Amended October 27, 2016
Sections 3.25.5 & .8, 12.3.2, 12.3.5	Amended May 8, 2018
Section 15	Amended May 8, 2018
Sections 12, 3.25.5 & .8	Amended May 14, 2019
Sections 1.4, 3.2, 5.1, 5.2, 12, 16	Amended May 11, 2021
Sections 3.25.8, 16	Amended May 14, 2022
Sections 12.3.2.9 and 12.3.5.5	Amended/Adopted May 9, 2023

APPENDIX 2
TEMPORARY MORATORIUM ON THE CONSTRUCTION
OF LARGE SOLAR ENERGY FACILITIES

(Effective January 17, 2019 until May 31, 2019)

1. Purpose: The Town of Warren recently has been the target of interest for the construction of large-scale solar photovoltaic energy systems. The Town has identified an immediate need to protect the Town and its citizens by updating its long-term zoning regulations to ensure that such uses and development will be consistent with the Town's long-term planning interests and its Master Plan. It is crucial that the Town act now to establish a temporary moratorium on the use of land and the construction of structures related to such large-scale solar photovoltaic energy systems and the issuance of special permits in connection with same. During the moratorium, the Town will undertake a planning process to evaluate the impacts of current and potential Large Solar Energy Facilities on the health, safety and welfare of Town residents and to consider appropriate amendments to its Zoning Bylaw to address said impacts, in accordance with state and federal law.
2. Temporary Moratorium: Notwithstanding any other provision in the Town of Warren Zoning Bylaw to the contrary, the Town hereby adopts a temporary moratorium on the new use of land for Large Solar Energy Facilities, effective immediately upon a Special Town Meeting vote, held on January 17, 2019 and in effect until May 31, 2019. No application for a Large Solar Energy Facility shall be accepted from the effective date of this temporary moratorium. The purpose of this temporary moratorium is to allow sufficient time to engage in a planning process to address the effects of such structures and uses in the Town, and to enact or amend bylaws in a manner consistent with sound land use planning goals and objectives.
3. This moratorium shall not apply to any special permit for which application was made prior to the effective date of this bylaw.